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Subsídios para Análise, Seleção e Aquisição de Software para Gerenciamento de Bibliotecas: Experiência do Sistema Integrado de Bibliotecas da USP (SIBi/USP)

São Paulo - 1996

SIBi
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UNIVERSIDADE DE SÃO PAULO
SISTEMA INTEGRADO DE BIBLIOTECAS
Av. Prof. Luciano Gualberto, Trav. J, 374 - 1º andar - Cidade Universitária
05508-900 - São Paulo, SP
☎ (011) 818-4193 e 818-4197 - Fax: (011) 815-2142 - dtsibi@org.usp.br
http://www.usp.br/sibi/sibi.html

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UNIVERSIDADE DE SÃO PAULO
SISTEMA INTEGRADO DE BIBLIOTECAS DA USP
DEPARTAMENTO TÉCNICO

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Rosaly Favero Krzyzanowski
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SISTEMA INTEGRADO DE BIBLIOTECAS

Departamento Técnico
Rosaly Favero Krzyzanowski

Divisão de Tratamento da Informação
Inês Maria de Morais Imperatriz

Serviço de Normalização de Publicações e Divulgação
Mariza Leal de Meirelles Do Coutto

Serviço de Processamento Automatizado
Marcia Rosetto

Divisão de Bibliotecas

Serviço de Acesso à Informação e ao Documento
Roberto Barsotti

Serviço de Formação e Manutenção de Acervos
Rosane Taruhn

Montagem
Marco Antonio Carvalho de Brito

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SUMÁRIO

APRESENTAÇÃO

A modernização de bibliotecas e sistemas de informação é um dos grandes desafios da atualidade, principalmente nos países em desenvolvimento. As iniciativas para concretizar os projetos existentes, no que se refere à automação, nem sempre atingem o resultado esperado, muitas vezes devido a falhas nos procedimentos de seleção e aquisição de software e equipamentos necessários ao seu funcionamento.

Estando amplamente desenvolvido o mercado internacional de produtos de automação para bibliotecas, a experiência de outros países, com as recomendações para o sucesso nessa escolha, em muito vem auxiliar as bibliotecas brasileiras, num momento em que estas deverão definir as suas necessidades e estabelecer os seus próprios critérios de seleção de recursos para essa finalidade.

O objetivo da presente publicação é justamente o de apresentar a experiência recente sobre o processo de seleção e aquisição de software/hardware para o Sistema Integrado de Bibliotecas da Universidade de São Paulo (SIBi/USP). A elaboração do "Request for Proposal" (RFP), de acordo com os procedimentos adotados em vários países, mas ainda não suficientemente difundidos entre nós, permitiu realizar uma aquisição criteriosa, uniforme, racional e abrangente, para atender a grande maioria dos propósitos de implementação da automação do SIBi/USP.

Um dos fatores relevantes e essenciais para o desenvolvimento desse trabalho foi a constituição de *comissões assessoras*, compostas de profissionais de várias áreas afins, sob a orientação de um consultor principal, com extensa vivência no assunto. Tal fato permitiu a representação das várias bibliotecas do Sistema nesse processo, preparando os seus integrantes para as novas rotinas a serem adotadas e para os avanços a serem brevemente alcançados. Desejamos, portanto, expressar os nossos melhores agradecimentos a todos os que colaboraram nas diversas etapas desse processo, e em especial ao Prof. Robert M. Hayes, da Universidade da Califórnia em Los Angeles, E.U.A., pela dedicação, competência e entusiasmo com que conduziu as equipes para a obtenção dos resultados pretendidos.

Esperamos que o material apresentado constitua um apoio para os profissionais da área, nos seus estudos de implantação ou renovação dos recursos de suas bibliotecas e sistemas de informação.

Rosaly Fávero Krzyzanowski
Diretora Técnica

1 INTRODUÇÃO

A modernização das bibliotecas está diretamente ligada à automação de rotinas e serviços, com o intuito de implantar uma infra-estrutura de comunicação para agilizar e ampliar o acesso à informação pelo usuário. Salvo algumas exceções, permanece ainda no Brasil o desafio para concretizar plenamente nas instituições as expectativas em relação ao assunto (KRZYZANOWSKI, 1994). Uma vez atendida essa etapa básica, será possível implementar também a cooperação interinstitucional, no que se refere à adoção de padrões e procedimentos comuns para o processamento técnico de publicações, o incremento de intercâmbio de registros bibliográficos e da comutação bibliográfica, entre outros, pois "*o que realmente precisamos não é da automação de velhos e ineficazes sistemas, mas da reestruturação e interligação das nossas instituições*"(CUNHA, 1994).

Na verdade, os avanços tecnológicos têm possibilitado o aperfeiçoamento e a diversificação dos recursos para a automação de bibliotecas. Nesse sentido, a tarefa de seleção e aquisição dessas ferramentas torna-se mais complexa, exigindo maior envolvimento e capacitação dos bibliotecários junto às comissões geralmente constituídas para essa finalidade, bem como a elaboração de documentação específica para subsidiar o processo de aquisição propriamente dito.

Considerando-se que foi recentemente desenvolvida a aquisição de software/ hardware funcionalmente integrados para o Sistema Integrado de Bibliotecas da USP (SIBi/USP), como parte do seu Projeto de Modernização[1], o presente texto foi organizado com o objetivo de relatar essa experiência àqueles que pretendem desenvolver ou atualizar a sua automação.

Sobre essa questão, uma análise da literatura da área, incluindo alguns tópicos destacados adiante, poderá certamente auxiliar numa abordagem inicial, permitindo dessa forma não só tomar conhecimento das soluções encontradas em outras instituições, como também precaver-se em relação a eventuais dificuldades ou lacunas que possam ocorrer. Serão também apresentadas as etapas desenvolvidas na Universidade de São Paulo, durante esse processo, além da cópia de documentação especialmente preparada, iniciando com breve relato sobre os serviços bibliotecários na USP.

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[1] Projeto subsidiado com recursos da FAPESP (Fundação de Amparo à Pesquisa do Estado de São Paulo - FAPESP), como parte do Programa de Infra-estrutura I.

1.1 Serviços bibliotecários na Universidade de São Paulo: breve descrição

O Decreto de fundação da Universidade de São Paulo, em 1934, previu bibliotecas ligadas às instituições universitárias. Com o desenvolvimento da USP através dos anos, novas bibliotecas foram instaladas, ampliando consideravelmente o acervo e os serviços prestados.

Na década de 70, devido às dificuldades econômicas do País, a manutenção das coleções bibliográficas e dos serviços bibliotecários, com recursos financeiros da própria Universidade, tornou-se uma preocupação maior, motivando, em 1979, a realização de um diagnóstico dessa área, por solicitação da Reitoria. O resultado obtido permitiu identificar, como solução mais adequada, a criação de um sistema bibliotecário integrado, reunindo as bibliotecas já existentes na USP, tendo em vista o "controle de custos e provisão de serviços eficientes para os usuários, através de esforços cooperativos para atender às demandas" (UNIVERSIDADE..., 1980).

Assim, em 1981 foi estabelecido o SISTEMA INTEGRADO DE BIBLIOTECAS DA UNIVERSIDADE DE SÃO PAULO (SIBi/USP), tendo como finalidade "criar condições para as atividades sistêmicas das bibliotecas da USP, para oferecer suporte ao desenvolvimento da pesquisa e do ensino" (PASQUARELLI et al., 1988).

O dimensionamento do Sistema foi realizado no sentido de manter a administração descentralizada em cada biblioteca, favorecendo, no entanto, através do órgão coordenador do Sistema (Departamento Técnico), a integração técnica das bibliotecas para projetos e programas globais, por meio de esforços cooperativos locais e da participação em programas mais amplos, abrangendo todas as bibliotecas, conforme a seguir especificado:

- definição de **padrões** e **procedimentos comuns** para o SIBi/USP;
- estabelecimento de programas cooperativos para a **aquisição** de materiais bibliográficos;
- **automação** dos acervos bibliográficos;
- implementação dos **serviços bibliotecários**, reduzindo o tempo de atendimento às demandas dos usuários;
- ampliação dos **serviços cooperativos** com outras instituições da área;
- incremento da **interação** com a comunidade acadêmica;
- **representação** das bibliotecas da USP junto às instituições externas e outros sistemas de informação.

Em conformidade com seu **Regimento** aprovado em 1985, o SIBi é composto de um Conselho Supervisor, um Departamento Técnico e de 38 bibliotecas nas

várias instituições universitárias, abrangendo cerca de 70 localizações nos vários "campi" e ocupando uma área física de 55.652 m^2 (Fig.1).

O Sistema, como um todo, é responsável pela coleção bibliográfica de 3.500.000 volumes, referentes a monografias, seriados, teses e materiais em outros suportes. Anualmente, são renovadas cerca de 9.000 assinaturas de periódicos nacionais e internacionais, bem como são adquiridos, por compra, cerca de 10.000 novos livros. Os dados de acervo, registrados no Banco de Dados Bibliográficos da USP-DEDALUS[2], com acesso via USPNET[3] e INTERNET[4], permitem ampla utilização por usuários da própria Universidade e dos provenientes de diversas instituições (UNIVERSIDADE...,1994). A circulação de material bibliográfico compreende cerca de 4.000.000 de itens anuais, para oferecer o apoio às atividades de ensino (130 cursos de graduação, 257 de Mestrado e 217 de Doutorado) e de pesquisa (média de 2.000 teses anuais e 17.000 trabalhos publicados). Assim, os serviços prestados são direcionados prioritariamente aos 5.000 docentes/pesquisadores e 57.000 alunos (graduação e pós-graduação), havendo também uma extensão à comunidade, possibilitando o atendimento de outros segmentos da população.

Pela excelência dos seus acervos e pela disponibilidade dos serviços bibliotecários, o SIBi/USP tem participado ativamente de programas cooperativos (a saber, catálogos coletivos regionais, nacionais e internacionais; serviços de comutação bibliográfica e de empréstimos-entre-bibliotecas; aquisição planificada; redes e serviços de informação), pretendendo aperfeiçoar e expandir atividades e serviços como conseqüência da modernização em andamento.

1.2 Proposta de aquisição de novo software/ hardware

Especificamente no que se refere à automação de acervos e serviços, estabelecidos como **prioridade** do Sistema, desde a sua criação, foi inicialmente desenvolvido um sistema "in-house", com gerenciamento centralizado em equipamento Unysis, que logo se tornou inadequado (PASQUARELLI et al., 1989). Contudo, interferências de ordem técnica impediram a obtenção das

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2 A Portaria GR 2922, de 16-11-94, publicada no D.O.E. de 18-11-94, Seção I, p.58, regulamenta o funcionamento do Banco de Dados da Universidade de São Paulo.

3 Rede automatizada de comunicação acadêmica e serviços administrativos da Universidade, usando fibra ótica para conectar todos os "campi"da USP como um sistema único.

4 Disponível, desde 1993, pela INTERNET, através dos comandos:
TELNET: server.usp.br
login: dedalus .
É possível, também, o acesso pela "homepage": http://www.usp.br/sibi/sibi.html

implementações propostas a médio prazo, concretizando-se nova possibilidade de desenvolvimento após a suspensão da reserva de mercado de informática no Brasil. Assim, com base nos modernos recursos tecnológicos, foi elaborado, em 1994, um Plano de Modernização para todo o Sistema, com ênfase na automação, visando à sua otimização através do apoio financeiro de instituições de fomento (UNIVERSIDADE...,1994).

2 ALGUNS TÓPICOS DE LITERATURA

No mundo moderno, a automação tem proporcionado maior agilidade às atividades do ser humano, de tal forma que não se pode mais prescindir de sua participação. Para os profissionais da informação, sobretudo, existe um interesse crescente e uma constante busca de soluções viáveis, nessa área, que possam vir de encontro às suas expectativas para o atendimento dos usuários de modo satisfatório.

Nesse contexto, a seleção e aquisição de software/hardware funcionalmente mais diversificados (isto é, interligando aquisição, processamento técnico, circulação, consulta, etc.), para bibliotecas e sistemas de informação, constitui um dos grandes desafios e apresenta características próprias. Não se trata, como à primeira vista possa parecer, de apenas se verificar o que há disponível no mercado, assistir a algumas demonstrações do seu funcionamento, trocar idéias com os colegas e iniciar os procedimentos usuais de aquisição. É, na verdade, um processo mais complexo, tendo em vista que nem sempre um software adequado a determinada biblioteca terá o mesmo resultado quando instalado numa outra, devido à especificidade de cada instituição.

Uma das principais recomendações para o sucesso na escolha do software/ hardware *apropriado para cada biblioteca*, portanto, depende da própria instituição. Em outras palavras, a fim de realizar uma escolha criteriosa e bem fundamentada, é *essencial* que a biblioteca *defina* e *especifique* previamente os seus próprios requisitos de automação, bem como em que medida o sistema a ser adquirido deverá atendê-los (itens de atendimento *obrigatório, desejável, opcional*). Para essa finalidade, é necessária a organização de etapas a serem cumpridas nesse processo, o qual demanda algum tempo e muita dedicação dos profissionais envolvidos, porém é altamente compensatório em termos de resultados obtidos.

A literatura da área de automação de bibliotecas é extensa e os trabalhos existentes são de grande valia aos bibliotecários que se propõem a implantar ou atualizar os sistemas de automação em suas instituições. Contudo, no presente

texto, serão comentados mais adiante alguns artigos que relatam experiências de aquisição de software utilizando determinado tipo de documento, o "Request for Proposals"- RFP[5], bem como apresentam recomendações para auxiliar a sua elaboração.

Complementando o material, serão incluídas também informações sobre o processo de aquisição de software/hardware levado a efeito no Sistema Integrado de Bibliotecas da Universidade de São Paulo (SIBi/USP), para modernizar a automação, em que foi utilizado um "Request for Proposal" (KRZYZANOWSKI et al., 1996).

A experiência de automação de bibliotecas utilizando-se de grandes computadores foi verificada desde a década de 60, inicialmente nos países desenvolvidos, para controle de algumas rotinas, expandindo-se posteriormente também em outras regiões, por meio de soluções obtidas tanto "in-house", como através de recursos disponíveis no mercado, apresentando aperfeiçoamento de máquinas, programas e serviços para uso de bibliotecas. Assim, a partir da década de 80 intensificaram-se os avanços tecnológicos, possibilitando ampliar a utilização dos mesmos para fins de armazenagem e recuperação da informação, encontrando-se na atualidade opções mais eficazes para atendimento da demanda. Convém mencionar as revisões feitas anualmente por *Library Journal*, em seu primeiro número de abril, sobre os sistemas online utilizados internacionalmente, com gráficos de distribuição conforme os vários tipos de bibliotecas. Há, também, a *Library Systems Newsletter*, da American Library Association, que desde 1984 vem apresentando considerações sobre as opções da indústria de automação de bibliotecas, igualmente de abrangência internacional, facilitando assim a análise prévia dessas informações pelos bibliotecários e demais interessados na área.

Considerando-se que no Brasil a oportunidade de se adquirir software/hardware funcionalmente mais diversificados, para promover a automação de rotinas e serviços bibliotecários, é mais recente, face às dificuldades temporárias, já superadas, de restrição de mercado, algumas recomendações serão apresentadas. Para iniciar, foi consultada a literatura internacional sobre o assunto, destacando-se dos registros existentes algumas experiências nos procedimentos de aquisição de sistemas automatizados, através do cumprimento de etapas preliminares (incluindo a elaboração de "Request for Proposal"), que favorecem e valorizam a seleção realizada em cada instituição. Assim, a revisão a seguir poderá oferecer

[5]RFP ("Request for Proposals") é um documento elaborado pelo cliente (biblioteca), apresentando o problema, suficientemente documentado, e o que pretende realizar em relação a ele. Solicita ao fornecedor uma proposta, com os detalhes exatos para a sua solução. Pode ser precedido, opcionalmente, por "Request for Information"(RFI), mais adiante comentado.

um primeiro suporte aos interessados, pretendendo-se que constitua também motivação para novas leituras e atualizações.

EPSTEIN (1983) alerta para o fato de que não existe sistema "ideal", no sentido de que mesmo a escolha mais acertada não atenderá completamente aos requisitos funcionais (i.e., quais atividades serão realizadas pelo sistema) e de "performance" (quantas atividades poderá atender e com que rapidez), além de executar o "backup" desejado e as operações de proteção, a custo compatível com o orçamento existente. Por esse motivo, é importante que a biblioteca determine as suas próprias necessidades obrigatórias e solicite as operações desejáveis somente após certificar-se de que as funções básicas e necessárias estejam atendidas. O preparo de documento, denominado "Request for Proposals" (RFP) na literatura internacional, é recomendado para essa finalidade[6]. Como conseqüência, existe um benefício para a biblioteca, no sentido de que o processo em questão possibilita obter mais esclarecimentos relativos à automação e melhor compreender as expectativas pertinentes. Lembrando sempre que cada biblioteca deve estabelecer as suas necessidades específicas, o autor recomenda consultar outros exemplos de RFP, preparados por várias instituições, para confirmação dos itens a serem incluídos. Para a organização do RFP, EPSTEIN (1983) propõe em seu artigo a inclusão dos seguintes tópicos, apresentando em relação a eles as considerações pertinentes, tais como: requisitos administrativos, funcionais, de desempenho, de confiabilidade, procedimentos de teste, especificações de resposta à biblioteca (terminologia, codificação de critérios de valor), tabela de localização física das instalações, condições de contrato e responsabilidade do fornecedor.

MERILEES (1983), por sua vez, considera que o RFP representa a principal etapa na seleção de um sistema online para a biblioteca. O seu objetivo é facilitar a avaliação do sistema, garantir que o processo de seleção seja competitivo e obter um compromisso do fornecedor em termos de capacitação do sistema e de especificações de preço. Alerta para a inconveniência de uma simples cópia, com adaptações, de outro documento similar, evitando assim que os requisitos próprios e únicos da biblioteca, bem como as suas prioridades, não sejam especificados apropriadamente. Porém, assim como EPSTEIN (1983), recomenda a consulta a outros textos de RFP como verificação dos itens de interesse. A autora ainda lembra que se a biblioteca não estabelecer o seu próprio processo de escolha de software, poderá obter como resultado uma solução desapontadora ou ainda enfrentar problemas insuperáveis no seu funcionamento.

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6 A elaboração do RFP deve seguir algumas orientações técnicas, destacadas pelos autores revisados no presente trabalho, e utilizadas também no processo levado a efeito pelo SIBi/USP, cujo texto se encontra em **APÊNDICE**.

Afirma também que o estudo abrangente dos requisitos do sistema, a serem apresentados num RFP, pode ser desenvolvido por uma comissão estabelecida no início do processo, gerenciada por um bibliotecário de sistemas ("systems librarian")[7] , por um consultor, ou ainda alguém que entenda os procedimentos da biblioteca e esteja familiarizado com as capacitações dos sistemas de automação de biblioteca disponíveis no momento. Essa pessoa deve ter ainda habilidade de coordenar reuniões de grupo, extraindo as idéias principais e obtendo consenso nas definições que farão parte do processo. Para cada área funcional a ser atendida pelo software, poderá ser constituído um grupo representativo, com profissionais da área técnica e administrativa. O seu envolvimento nesse trabalho aumentará o seu entendimento dos sistemas online e reduzirá as expectativas inevitáveis da implantação da automação na biblioteca. MERILEES (1983) considera duas principais etapas, para as quais apresenta detalhamento em seu artigo: 1) Seleção do sistema, abrangendo estudo de viabilidade e justificativa de custos; definição de requisitos do sistema: "Request for Information" (RFI)[8], opcional: "Request for Proposal" (RFP); avaliação e seleção do sistema, negociação do contrato; 2) Implementação do sistema, incluindo planejamento de conversão e implementação, instalação, treinamento, conversão e criação de registros, teste de aceitação e revisão da "performance" do sistema. De acordo com essa proposta, apresenta ainda um sumário típico de RFP, reproduzido no **Quadro 1** do presente documento.

BOLEF e GARDNER(1988), da Rush University, de Chicago, nos E.U.A., relatam a experiência de sua própria biblioteca, comentando ainda sobre RFPs em outras doze bibliotecas da área da saúde, num estudo por eles realizado. Apresentam uma revisão de literatura sobre o preparo de RFPs, destacando aspectos considerados relevantes, com o objetivo de estabelecer o que as bibliotecas obtêm com esse processo e quais os melhores resultados alcançados. Foram também incluídas no estudo entrevistas com alguns fornecedores de software sobre os RFPs que os mesmos recebiam e seu respectivo conteúdo, informando sobre a inclusão de tópicos que possibilitariam melhor retorno de sua parte às bibliotecas. Como conclusão, os autores apresentam algumas recomendações, reproduzidas no **Quadro 2**, do presente documento.

PREDMORE (1988) informa sobre o processo verificado num consórcio de múltiplas bibliotecas (SCOLIS) em Spokane, Washington, E.U.A., para a renovação do sistema automatizado, com detalhamento sobre a instituição e seus

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[7] "Systems librarian" é o profissional bibliotecário treinado na área de automação de bibliotecas, de tal forma a atuar como elemento de ligação entre a biblioteca e os analistas de sistemas para assuntos referentes a software/hardware específicos.

[8] RFI ("Request for Information") é um texto breve, elaborado pelo cliente (biblioteca), solicitando ao fornecedor informações básicas de produtos/custos para uma pré-seleção. O formato de resposta difere daquele utilizado para o RFP, sendo mais esquemático e sucinto (MERILEES, 1983).

projetos. Embora eficiente, o sistema em uso necessitava implementações para aumento de flexibilidade e capacidade, o que poderia ser obtido com a substituição dos recursos de automação existentes. Como resultado, além das novas facilidades de registro em formato USMARC e de implementações na busca de informações, algumas vantagens, tais como verificação de novas áreas de cooperação proporcionadas pelas inovações tecnológicas, foram estabelecidas.

JOHNSON(1989) noticia sobre o RFP elaborado para o Ohio Library and Information System, prevendo funções integradas para as bibliotecas participantes, com operações centralizadas e descentralizadas, expansões ilimitadas, atendimento a normas e padrões nacionais e internacionais, equipamentos previstos e procedimentos adotados nesse amplo processo de aquisição, fornecendo o endereçamento para obter informações complementares.

THOMAS (1991) destaca algumas recomendações no processo de elaboração de RFPs, especificando a sua essência: definir os produtos e serviços que se deseja adquirir, de forma apropriada, sem mencionar marcas ou nomes comerciais, porém de modo suficiente a obter a resposta desejada. Em seu artigo, apresenta considerações sobre: entendimento dos requisitos necessários, descrição dos requisitos funcionais, identificação de limitações (p.ex., espaço físico, orçamento, etc.), estabelecimento de método de avaliação, reconhecimento da responsabilidade do cliente e do fornecedor. Em relação a requisitos funcionais, relaciona algumas recomendações (**Quadro 3**).

PORTER-ROTH (1991) propõe a organização de um RFP, passo a passo, conforme reproduzido no **Quadro 4**, considerando essencial que o documento em questão: a) apresente um entendimento claro dos itens; b) estabeleça um método de resposta e análise dos itens (Seção de Administração); c) possibilite ao fornecedor um método aceitável para executar o trabalho (Seção de Contrato e Preços). Considera ainda as seguintes possibilidades de realização: a)desenvolver duas etapas, constando respectivamente de RFI ("Request for Information"), para especificar a viabilidade de tecnologia e produtos a serem posteriormente definidos, e de RFP ("Request for Proposal"); b) desenvolver o RFP ("Request for Proposal"). Em suas recomendações, menciona e reforça aspectos já formulados pelos outros autores revistos no presente texto, porém apresenta diretrizes de avaliação das propostas dos vendedores, que poderão servir como base na elaboração de RFPs.

JEHL (1994) apresenta um documento sucinto, listando pontos a serem verificados no processo de escolha de software para biblioteca (**Quadro 5**). O trabalho está vinculado à International Association of Agricultural Information

Specialists - IAALD, cujo objetivo é incrementar o acesso e uso das fontes de informação na área de Agricultura.

Recomenda-se a verificação dos **Quadros** encontrados nos trabalhos mencionados acima, adaptados e incluídos no presente texto, com o objetivo de apresentar exemplificação de alternativas e recomendações dos vários autores, sobre a elaboração de RFP.

3 PROCESSO DE SELEÇÃO E AQUISIÇÃO DE SOFTWARE/ HARDWARE PARA O SIBi/USP

O processo de seleção e aquisição de software/ hardware para as 38 bibliotecas do SIBi foi levado a efeito em várias etapas. Pode-se verificar que todo o trabalho foi realizado de acordo com as especificações da literatura da área, a fim de atingir os objetivos previstos .

Inicialmente foi contratado um entendimento com um consultor externo[9], experiente nesse processo de aquisição com outras instituições, o que proporcionou um apoio inestimável no desenvolvimento das diversas etapas, cujas características principais serão apresentadas a seguir.

3.1 Análise das informações disponíveis

Nesse primeiro momento, foram realizados os seguintes estudos:

3.1.1 Análise do Banco de Dados DEDALUS, com todos os seus componentes, tipos de registros e produtos, sistema de gerenciamento, arquitetura da rede e equipamentos. Verificação das necessidades de ajustes, expansão, reformulações, atualizações, etc.;

3.1.2 Delineamento das características gerais do sistema a ser implantado nessa modernização, a saber, software com funções integradas, estrutura de dados (USMARC), arquitetura e capacitação de hardware, etc.;

3.1.2.1 Proposta inicial de configuração do sistema - atendimento aos padrões vigentes de descrição bibliográfica, realização de funções integradas de biblioteca, importação e exportação de dados via máquina, interface com outros sistemas, funções desejáveis, integração com bases locais das bibliotecas, etc. (Fig.2)

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9 O consultor escolhido para esse processo foi o Prof. Robert M. Hayes, da Universidade da California, Los Angeles, E.U.A.

3.1.2.2 Proposta inicial de configuração da base de dados e da rede para as bibliotecas do SIBi, tendo como referencial a configuração de rede adotada na Universidade como um todo (USPNet - plataforma UNIX, arquitetura cliente/servidor, etc.), propiciando o gerenciamento das bases bibliográficas em nível sistêmico e individuais por biblioteca, utilizando rede própria do SIBi (SIBiNet) (Fig.3);

3.1.3 Levantamento de produtos existentes no mercado internacional (através de revisões de literatura, catálogos de fornecedores, demonstrações de sistemas, visitas a outras bibliotecas com sistemas automatizados, etc.);

3.1.4 Análise dos prováveis fornecedores de software/hardware em função dos objetivos previstos de funcionalidade do sistema, de arquitetura da rede e das especificações técnicas das bibliotecas e da instituição (USP). Verificação da qualificação das empresas (capacidade de atender aos requisitos do RFP , bem como de oferecer e manter os serviços de suporte);

3.1.5 Levantamento preliminar de custos envolvidos com a renovação de software/hardware, instalação completa da rede para todo o Sistema, conversão de dados e assistência técnica ao material adquirido;

3.1.6 Análise de possibilidades de obtenção de recursos externos para a concretização do projeto.

Para reunir os dados principais já obtidos, foi utilizado formulário especialmente organizado (**Quadro 6**), para atribuição inicial de pontos aos produtos identificados. Concluída essa fase, em que o primeiro delineamento foi realizado, previu-se a elaboração de projeto a ser apreciado por agência de fomento, para obtenção dos recursos financeiros necessários.

3.2 Elaboração do projeto

Para essa finalidade, foi constituída uma comissão interna, composta de bibliotecários, analistas de sistemas e representantes do Conselho Supervisor do SIBi. O trabalho demandou amplo levantamento das condições de área física e serviços realizados pelas bibliotecas do Sistema, classificando-as pelo porte em relação às suas características (acervo, usuários, serviços prestados, etc.). Foi ainda realizada pesquisa no mercado de informática para verificar a disponibilidade de todos os equipamentos necessários. Previu-se a demanda para instalação da rede de fibra óptica interligando as bibliotecas, possibilitando o acesso à INTERNET, e também a instalação de redes locais para trabalhos específicos de cada Unidade.

Com esses elementos, foi organizado o **Projeto de Modernização** (UNIVERSIDADE..., 1994), estabelecendo cronograma de desenvolvimento para dois anos, a fim de abranger seleção, aquisição de software/hardware, treinamentos de analistas e de bibliotecários, conversão de registros, contrato e serviços do fornecedor.

3.2.1 Configuração da rede (SIBINet) na USPNet

Todo o processo foi desenvolvido para atender à configuração da rede nas bibliotecas do Sistema, conforme representado na Fig. 4. Assim, a SIBiNet proporcionará o acesso às informações via INTERNET, por meio de um servidor central, instalado no Centro de Computação Eletrônica da USP, ao qual serão interligados 10 servidores regionais nas várias regiões da cidade e do Estado de São Paulo, para o atendimento às várias bibliotecas do Sistema. Além da utilização dos microcomputadores e demais periféricos alocados nas bibliotecas, e adquiridos segundo especificações uniformes para todo o Sistema, será possível ainda estabelecer outros pontos de consulta, por exemplo nos Departamentos das Unidades da USP e em residências de docentes.

3.3 Obtenção de recursos financeiros

Uma vez submetido à Fundação de Amparo à Pesquisa do Estado de São Paulo (FAPESP) e por ela aprovado, o Projeto foi implementado, iniciando-se os procedimentos de seleção e aquisição de software. Com referência ao hardware, a sua definição foi prevista num segundo momento, prevendo-se a compatibilização entre software e hardware.

3.4 Organização do "Request for Proposal"(RFP)

Para iniciar os trabalhos, foi oficializada a *"Comissão de Seleção e Acompanhamento da Implantação de Software/Hardware para o Sistema Integrado de Bibliotecas da USP"*, bem como designados os respectivos membros, através de Portaria do Magnífico Reitor (UNIVERSIDADE..., 1995) (Fig. 5).

As seguintes etapas foram definidas para desenvolvimento, constando de:

3.4.1 Organização de 8 sub-comissões assessoras (Fig.6), constituídas de bibliotecários representantes de várias bibliotecas e do DT/SIBi, analistas de sistemas e membros da *Comissão de Seleção*, para análise dos seguintes tópicos: a) princípios gerais; b) processamento técnico; c) atendimento ao usuário;

d) administração; e) funções opcionais desejáveis; f) elementos de suporte ao sistema; g) qualificações das empresas; h) custos;

3.4.2 Elaboracão do documento "Request for Proposal" (RFP) (UNIVERSIDADE..., 1995a), cujo conteúdo foi delineado pela *Comissão de Seleção* para descrever as necessidades do Sistema Integrado de Bibliotecas, no seu processo de modernização, oferecendo aos fornecedores de software/hardware os dados necessários para a apresentação de suas propostas, das quais deveriam constar as soluções detalhadas para atendimento ao SIBi/USP (Ver **APÊNDICE**);

3.4.3 Estabelecimento de procedimentos para seleção do fornecedor: critérios para recebimento das propostas, avaliação de seu conteúdo com o suporte de formulários especialmente elaborados, pontuacão dos vários itens do formulário pelas comissões assessoras, processamento dos dados referentes à pontuação efetuada, resultados obtidos;

3.4.4 Elaboração do relatório referente a essa etapa (3.4.3), apresentando as recomendações para o seguimento do processo. Definição dos fornecedores selecionados, para complementar informações relativas a seus respectivos produtos e serviços;

3.4.5 Demonstração dos produtos selecionados, pelos respectivos fornecedores, para a *Comissão de Seleção* e para as subcomissões;

3.4.6 Visitas às instalações comerciais dos fornecedores, às equipes de desenvolvimento, a clientes estabelecidos;

3.4.7 Análise final das propostas e dados dos fornecedores. Definição do fornecedor para atendimento às necessidades de automação do SIBi/USP, no que se refere a software;

3.4.8 Negociação e assinatura do contrato de licenças de uso e de serviços de implantação, treinamento e assistência técnica.

3.5 Procedimentos de avaliação dos produtos e aquisição do software selecionado

3.5.1 Primeira etapa

Os seguintes procedimentos foram utilizados durante o processo: a) observância dos prazos de entrega de propostas e conferência da documentação enviada pelos

fornecedores; b) atribuição de pontos às respostas de cada item solicitado no RFP, utilizando formulários especialmente preparados, dentre os quais estão sendo anexados alguns exemplos (**Quadro 7**); c) processamento dos dados em computador, com atribuições de pesos de acordo com a prioridade estabelecida para cada item; d) estabelecimento da classificação dos fornecedores envolvidos no processo, tendo sido pré-selecionados **dois**, que obtiveram maior pontuação.

3.5.2 Segunda etapa

A seguir, nova etapa foi iniciada, solicitando aos fornecedores em questão informações sobre capacitação de hardware adequado ao funcionamento dos software pré-selecionados, estabelecendo novo prazo de respostas. Foi, também, programada uma demonstração do funcionamento dos produtos em questão à *Comissão de Seleção*.

A análise das respostas dos fornecedores permitiu à *Comissão de Seleção* definir as especificações dos equipamentos a serem adquiridos. No entanto, para o esclarecimento de alguns aspectos relativos às condições de trabalho da empresa e seus planos de desenvolvimento de produtos, foi necessário programar visitas técnicas às sedes dessas empresas e a bibliotecas que utilizam os software pré-selecionados. Com essa finalidade, foram destacados dois membros da *Comissão de Seleção*, especificamente um especialista em informática e uma bibliotecária do DT/SIBi.

Somente após a obtenção de todas as informações previstas no processo, foi possível definir o fornecedor que apresentou as condições mais adequadas para atendimento às necessidades do Sistema Integrado de Bibliotecas da Universidade de São Paulo[10], para então iniciar os procedimentos de aquisição propriamente dita.

Durante o processo, recomendou-se especial cuidado na manutenção de toda a **documentação** decorrente das atividades desenvolvidas, para subsidiar a elaboração de contrato e futuros ajustes/atualizações que se fizerem necessários no sistema a ser implantado.

Foram elaborados relatórios parciais, referentes às diversas etapas envolvidas, e um relatório final sobre a conclusão do processo. Essa documentação foi apresentada ao Conselho Supervisor do SIBi, ao Magnífico Reitor da USP e, após as devidas aprovações, à FAPESP.

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[10] A análise e os procedimentos de seleção indicaram o software ALEPH, da empresa israelense EX-LIBRIS LTD., como o mais apropriado para o Sistema Integrado de Bibliotecas da USP.

3.6 Definição do hardware e periféricos

No decorrer da segunda etapa (item 3.5.2), estando pré-selecionados os dois software para o Sistema Integrado de Bibliotecas da USP, passou-se à definição das especificações de hardware e periféricos apropriados para o seu funcionamento: microcomputadores, impressoras, scanners, canetas ópticas, material de suporte à instalação de redes, servidores do sistema, conforme especificações do RFP, referendadas pela *Comissão de Seleção*. Verificou-se no mercado a disponibilidade de equipamentos de características apropriadas aos software em julgamento, bem como foram consultados os fornecedores dos dois software, pré-selecionados, para confirmação das especificações corretas de hardware para os produtos por eles representados.

Pretendeu-se, assim, garantir a **uniformidade** de especificações, para que se viabilizasse o pleno funcionamento do sistema, promovendo a expansão prevista do Banco de Dados Bibliográficos - DEDALUS (Fig.2) e a funcionalidade requerida para o aperfeiçoamento de serviços ao usuário (Fig.4). Os recursos materiais foram dimensionadas de acordo com o porte e as características de cada biblioteca e do Sistema como um todo. Para a instalação dos principais servidores de rede, foram contratados também treinamentos e apoio técnico, com vistas ao bom andamento dos trabalhos e adequação do pessoal envolvido às novas rotinas e procedimentos.[11]

3.7 Negociação e assinatura do contrato

Na seqüência, foram iniciados os trabalhos de negociação do contrato de cessão de uso e manutenção do software Aleph, com a participação da *Comissão de Seleção*, da empresa EX-LIBRIS, e de representantes da Fundação de Apoio à Universidade de São Paulo (FUSP), designada pelo Magnífico Reitor da USP para formalizar essa etapa do processo.

Em se tratando de contrato com empresa internacional, foram elaborados textos em inglês e português, para atendimento aos requisitos legais de ambos os países (Israel e Brasil). Constaram das cláusulas elaboradas as principais responsabilidades respectivamente da empresa e da USP, nesse processo, bem como os entendimentos sobre cessão de uso do software, instalação do sistema, treinamentos, assistência técnica e atualização das versões.

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[11] Os servidores de rede são provenientes da DIGITAL EQUIPMENT Corp.. A eles são conectados os microcomputadores do tipo PENTIUM, de 90 e 100 MHZ, da AT&T., impressoras HP e demais periféricos.

4 VANTAGENS DA MODERNIZAÇÃO DE SUPORTE COMPUTACIONAL PARA O SISTEMA INTEGRADO DE BIBLIOTECAS DA USP

Como principais vantagens da atualização e modernização dos recursos computacionais para o SIBi/USP, de acordo com os procedimentos utilizados, podem-se citar:

- Decisões realizadas de forma compartilhada, com documentação exaustiva, para garantir o pleno funcionamento do sistema, bem como para subsidiar futuras implementações ou ajustes que se façam necessários;
- Informação bibliográfica registrada segundo padrões internacionais(formato USMARC[12], catalogação segundo o AACR2 (CÓDIGO...1983-85)), requisito essencial para a área de bibliotecas, atingindo nível mais completo de dados e proporcionando maior abrangência e agilidade em sua recuperação;
- Ampliação das possibilidades de agregar valor à informação[13], em decorrência da aplicação das novas tecnologias;
- Maior flexibilidade no gerenciamento do Banco DEDALUS, através de operações centralizadas, necessárias ao controle de qualidade, e de operações descentralizadas pelas bibliotecas do Sistema, permitindo maior agilidade;
- Ampliação de custo-benefício dos investimentos realizados, através do estabelecimento de projeto global com **uniformidade** de especificações e procedimentos para todo o Sistema Integrado de Bibliotecas da USP;
- Intercâmbio de informações bibliográficas com outras instituições brasileiras e do Exterior, ampliando as possibilidades de busca para o usuário;
- Implementações nas rotinas bibliotecárias e nas facilidades de uso do sistema;
- Instalação de publicações eletrônicas;
- Otimização dos produtos obtidos a partir dos dados armazenados no Banco DEDALUS;
- Desenvolvimento de treinamentos e cursos, visando a atualizar e preparar adequadamente os recursos humanos do Sistema para as atividades decorrentes dessa implantação.

Além disso, estão em andamento outros **projetos complementares**, podendo-se destacar:

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12 Machine-Readable Cataloging: é um formato bibliográfico internacional, compreendendo um conjunto de padrões para identificação, armazenagem e intercâmbio de dados de catalogação, sendo encontrado em adaptações nos vários países como USMARC, UKMARC, etc.

13 "Valor agregado" é uma forma de distribuir ou disseminar de maneira mais rápida e efetiva uma determinada informação. Para tanto, ela deve ser revisada, processada e formatada, utilizando mecanismos de disseminação massiva, promoção, propaganda, etc. com a finalidade de abrir possibilidades de consulta e utilização (FABA BEAUMONT, 1996).

- *Projeto de Conversão Retrospectiva dos Acervos Bibliográficos da USP*[14], em desenvolvimento pelo "Online Computer Library Center" (OCLC), de Ohio, Estados Unidos, com recursos provenientes de "The A .W. Mellon Foundation", de Nova York, Estados Unidos, a partir de nov./95;
- *Realização de catalogação "online"*, através da utilização dos serviços PRISM e CAT ME Plus, da OCLC, racionalizando as atividades de processamento técnico pelas bibliotecas e garantindo a manutenção de padrão de qualidade previsto, a partir de maio/96;
- *Aperfeiçoamento da Lista de Assuntos USP*, para instalação no novo software, elaborado por Comissão Assessora do DT/SIBi, a partir de 1993;
- *Instalação e implementação de bases de dados de autoridades*, em 1997;
- *Implementações de intercâmbio com outros sistemas e redes de informação*, para trabalhos cooperativos na área, após a instalação completa do sistema;
- *Capacitação de Recursos Humanos do SIBi/USP*, para adequação ao novo perfil do bibliotecário e das organizações, perante as novas tecnologias, a partir de 1995.

5 COMENTÁRIOS FINAIS

A partir das ações propostas no "*Plano de Modernização do SIBi/USP*", a SIBiNet possibilitará que os serviços bibliotecários estejam equipados com modernos recursos para seleção, tratamento, armazenagem e disponibilização da informação bibliográfica na Universidade. Nesse sentido, está previsto também o aperfeiçoamento dos processos de gestão, envolvendo o desenvolvimento adequado de coleções bibliográficas, o preparo e obtenção de produtos decorrentes da automação, o aperfeiçoamento de pessoal, além das iniciativas para trabalhos cooperativos e de compartilhamento de recursos. Desse modo, será possível incrementar e expandir a interconectividade do SIBi/USP com outras instituições do Brasil e do Exterior, reforçando o intercâmbio bibliográfico em nível local, regional e internacional, favorecendo sobremaneira o usuário nas suas atividades de pesquisa e ensino.

Espera-se que o presente texto ofereça esclarecimentos e indicações úteis, com base nas ações levadas a efeito com essa finalidade pelo Sistema Integrado de Bibliotecas da USP, e seja um incentivo para o processo de seleção e aquisição de software/hardware por outras redes e sistemas de informação.

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14 O processo de conversão retrospectiva de registros bibliográficos permite a criação de um **arquivo legível por máquina**, a partir de catálogo ou base de dados já disponíveis, complementando os dados faltantes, de imediato, de acordo com as regras adotadas para análise descritiva, nível de completeza dos registros bibliográficos, formato bibliográfico, uso de tabelas de assunto/sistemas de classificação, recursos de controle de autoridades (BEAUMONT e COX, 1989).

6 REFERÊNCIAS BIBLIOGRÁFICAS

BEAUMONT, J.; COX, J.P. Retrospective conversion : a practical guide for libraries. Westport : Meckler, 1989. 198p. (Supplements to computers in libraries, 7)

BOLEF, D.B.; GARDNER,T. Request for proposals for library automation. Bull. Med. Libr.Assoc., v.76, n.2, p.141-5, April 1988.

CÓDIGO de catalogação anglo-americano. 2ed. São Paulo : FEBAB, 1983-1985. 2v.

CUNHA, M.B. As tecnologias de informação e a integração das bibliotecas brasileiras. In: SEMINÁRIO NACIONAL DE BIBLIOTECAS UNIVERSITÁRIAS, 8., Campinas, 1994. Anais. Campinas : UNICAMP,1994. p. 105-122.

EPSTEIN, S.B. Procurement without problems : preparing the RFP. Library J., v.108, n.11, p. 1109-10, June 1983.

FABA BEAUMONT, G. Valor agregado de la información : las condiciones de la oferta de la información sobre salud en México. In: CONGRESSO REGIONAL DE INFORMAÇÃO EM CIÊNCIAS DA SAÚDE, 3., Rio de Janeiro, 1996. Anais. Rio de Janeiro : OPAS/OMS/BIREME/FIOCRUZ, 1996. p. 3-8.

JEHL, M.J. Guidelines for selecting library automation software. s.l. : IAALD Education and Training Committee, December 1994. 2p. (IAALD Training Guide, 1)

JOHNSON, S.W., ed. RFP released for Ohio State Library System. Inf. Retr. Libr. Aut., v.25, n.4, p.1-2, Sept. 1989.

KRZYZANOWSKI, R.F. Integração e compartilhamento das bibliotecas brasileiras na busca e obtenção da informação : um desafio de muitas décadas. In: SEMINÁRIO NACIONAL DE BIBLIOTECAS UNIVERSITÁRIAS, 8., Campinas, 1994. Anais... Campinas : Biblioteca Central/UNICAMP, 1994. p. 47-54.

KRZYZANOWSKI, R.F. et al. Gestões para a modernização do Sistema Integrado de Bibliotecas da Universidade de São Paulo : incremento da automação através de projetos em desenvolvimento. In: SEMINÁRIO NACIONAL DE BIBLIOTECAS UNIVERSITÁRIAS, 9., Curitiba, 1996. Anais... Curitiba : Universidade Federal do Paraná/Pontifícia Universidade Católica do Paraná, 1996. Ref. 6.6. (Publicado em disquete)

MERILEES, B. RFPs and on-line library system selection. Can. Libr. J. v.40, n.1, p.15-19, Feb. 1983.

PASQUARELLI, M.L.R. et al. Sistema Integrado de Bibliotecas da Universidade de São Paulo : implantação e desenvolvimento. Ci.Inf., v.17, n.1, p.59-66, jan./jun., 1988.

PASQUARELLI, M.L.R. et al. A informação bibliográfica automatizada na USP : uma política para sua implantação. Ci.Inf., v.18, n.1, p.58-61, jan./jun. 1989.

PORTER-ROTH, B. How to write a request for proposal : a step-by-step outline for analyzing your needs and soliciting bids. Inform, v.5, n.4, p. 26-30, Apr. 1991.

PREDMORE, L.G. The second time around: preparing the RFP for a second-generation system in a consortium environment. Inf. Technol Libr., v.7, n.4, p. 395-400, 1988.

THOMAS,M.L. You only get what you ask for? Tips on writing na RFP. Inform , v.5, n.3, p. 30-32, Mar. 1991.

UNIVERSIDADE DE SÃO PAULO. Diagnóstico das bibliotecas da Universidade de São Paulo. São Paulo : USP, 1980. 2 v.

UNIVERSIDADE DE SÃO PAULO. Portaria GR -2971, de 11 de outubro de 1995. Diário Oficial, 17 out. 1995. Seção I, p.20. Dispõe sobre a criação da Comissão de Seleção e Acompanhamento da Implantação de Software/Hardware para o Sistema Integrado de Bibliotecas da USP.

UNIVERSIDADE DE SÃO PAULO. Sistema Integrado de Bibliotecas. Departamento Técnico. Informatização do Sistema Integrado de Bibliotecas: implementações de recursos para o Banco de Dados Bibliográficos da USP DEDALUS e infra-estrutura para as bibliotecas do Sistema. São Paulo : DT/SIBi/USP, 1994. 192 p. (Projeto apresentado à FAPESP)

UNIVERSIDADE DE SÃO PAULO. Sistema Integrado de Bibliotecas. Departamento Técnico. Request for proposals for Sistema Integrado de Bibliotecas da Universidade de São Paulo. São Paulo : DT/SIBi/USP, 1995a. 50 p.

QUADROS

QUADRO I

Sumário de "Request for Proposal " (RFP) (MERILEES, 1983)

1.0 Condições e Processo de RFP
1.1 O contexto da biblioteca
1.2 Estabelecimento de requisitos
1.3 Condições de apresentação de propostas e instruções (para os fornecedores)
1.4 Cronograma de atividades de seleção
1.5 Referências
1.6 Avaliação dos sistemas propostos
1.7 Seleção do sistema
1.8 Testes de aceitação e cronograma de pagamento
1.9 Acordo contratual

2.0 Requisitos funcionais[1]
2.1 Requisitos do sistema (p.ex. Aquisição)
2.2 Conteúdo do registro
2.3 Saídas e relatórios estatísticos
2.4 Conversão de registros
2.5 Interface com outros sistemas (se aplicável)
2.6 Segurança do sistema

3.0 Requisitos técnicos
3.1 Hardware (computador, terminais, impressoras, controladores, disco e fita)
3.2 Software (sistema operacional, aplicativos, sistema gerenciador da base de dados, utilitários)
3.3 Requisitos de comunicação (linhas de comunicação, modems, etc.)
3.4 Back-up e recuperação do sistema
3.5 Requisitos da área físicas
3.6 Suprimentos

4.0 Atendimento da empresa
4.1 Preparação da área física
4.2 Instalação do sistema
4.3 Manuais de documentação e operacionais
4.4 Treinamento
4.5 Manutenção e contratos de manutenção
4.6 Aperfeiçoamento e atualização do sistema
4.7 Situação financeira e estrutura da empresa

[1] Seções **2.1** e **2.3** são repetidas para cada função soiicitada pela biblioteca

QUADRO 2

Recomendações de BOLEF e GARDNER (1988) para a Elaboração de "Request for Proposal" (RFP)

1. Conheça e visite, tanto quanto possível, fornecedores e instalações de biblioteca antes de realizar um RFP.
2. Investigue a idoneidade e as condições financeiras dos prováveis fornecedores. Solicite uma declaração de sua condição financeira.
3. Converse com o pessoal de desenvolvimento da empresa durante as negociações do RFP.
4. Converse com grupos de usuários sobre a atuação profissional do fornecedor, os programas de pesquisa e desenvolvimento, bem como o nível de satisfação das bibliotecas que utilizam o sistema.
5. Inclua o número máximo de registros bibliográficos, de usuários e terminais, além da taxa de crescimento atual e esperada da base de dados.
6. Faça distinções claras entre o que é obrigatório, desejável e opcional.
7. Envie os RFPs somente a fornecedores com grande possibilidade de atendimento e cujos sistemas possam atender às condições definidas.
8. Estabeleça tempo suficiente para as respostas ao RFP.
9. Envie os RFPs somente após a obtenção dos recursos financeiros para o projeto.
10. Se a biblioteca está comprando um sistema fechado[1], incluindo software e hardware, verifique se todo o equipamento é novo. Se não, qual sua idade e condição?
11. Especifique datas para o início das várias funções e as penalidades a serem aplicadas em caso de descumprimento.
12. Estabeleça os limites aceitáveis para o sistema permanecer fora do ar.
13. Inclua procedimentos de back-up quando o sistema estiver fora do ar.
14. Lembre-se de numerar as páginas.

[1] Sistema fechado ("turnkey system") é fornecido com todo o hardware e documentação necessários, contendo os programas já instalados, e pronto para ser usado.

QUADRO 3

Requisitos Funcionais para a Elaboração do "Request for Proposal"-RFP (THOMAS (1991))

1. Descreva o que deve ser feito, não como deveria ser feito.
2. Nunca solicite alguma coisa sem ter idéia de qual seria a resposta.
3. Nunca estabeleça um critério de "performance" que você não possa medir.
4. Apresente com clareza os requisitos mínimos e identifique os itens considerados opcionais.
5. Use sentenças curtas afirmativas.
6. Evite nomes comerciais.

QUADRO 4

Recomendações sobre a Organização do "Request for Proposal" RFP (PORTER-ROTH, 1991)

A. Organização do documento (Seções)

- informações gerais para as propostas
- resumo dos problemas e necessidades a serem solucionados
- seção técnica com informações suficientes para a resposta do fornecedor
- seção administrativa para administração do projeto
- seção de preços para os diversos itens solicitados
- seção de contrato e licenças de uso

B. Detalhamento das seções

1. Informações gerais para as propostas

- data e local de apresentação das propostas pelos fornecedores
- data e local da avaliação das propostas
- datas relevantes para o processo
- requisitos para o preparo das propostas
- critérios de avaliação das propostas
- Nomes e endereço de contato para o RFP

2. Seção técnica

- descrição básica dos issues e problemas, e o que é esperado dos fornecedores
- panorama das operações atuais, incluindo rotinas, sistemas e procedimentos
- especificações funcionais para o processamento técnico
- especificações de entrada de dados
- especificações de saida de dados
- especificações de "performance"
- requisitos de hardware
- requisitos de software
- requisitos de linhas e canais de comunicação

(cont.)

3. Seção administrativa

- Instruções para o plano de administração do projeto
- preparo do local de instalação do sistema e responsabilidades pertinentes
- cronograma e plano de entrega e instalação
- critérios gerais para o teste de aceitação do sistema
- requisitos para manutenção do sistema
- requisitos para treinamento do sistema
- documentação requerida
- qualificações e experiência do fornecedor
- referências dos clientes do fornecedor
- relatórios financeiros do fornecedor

4. Seção de preços (em separado para cada componente)

- hardware
- software do sistema
- aplicativos
- instalação
- manutenção
- treinamento
- documentação
- administração do projeto

5. Contratos e Licenças de Uso

- contrato de compra
- contrato de manutenção
- período de garantia
- licença de uso do software
- obrigações de performance
- obrigações de pagamento
- situações não previstas

C. Diretrizes de avaliação para as propostas dos fornecedores

- entendimento dos requisitos
- excelência da apresentação
- satisfação dos requisitos técnicos obrigatórios
- conformidade com os requisitos do RFP
- qualificações e experiência, incluindo referências de clientes, "curricula" de pessoal-chave da empresa, e experiência em atender a sistemas semelhantes
- habilidade em atender aos requisitos de demonstração
- apresentação oral
- plano proposto de administração do projeto
- preço da proposta em comparação com os das demais propostas recebidas

D. Outros itens a considerar

- profissionalismo e apresentação da proposta
- opiniões pessoais e avaliação da equipe sobre conduta, capacitação e profissionalismo de vários fornecedores
- opinião da equipe sobre o compromisso do fornecedor com o projeto e o relacionamento a longo prazo que será necessário para o sucesso do mesmo
- condição financeira do fornecedor para atender metas e objetivos de longo prazo

E. Alternativas para atribuição de valores aos vários itens considerados

- utilizar uma faixa de conceitos: de excelente até insuficiente, ou por números, de 0 a 5, sendo 0 insuficiente e 5 excelente

QUADRO 5

IAALD Training Guide 1

Guidelines for Selecting Library Automation Software

Identification of needs is a necessary precondition for any development and acquisition of application software in order to acquire software that meets the librarian's specific needs and requirements, and has the desired quality and standards. Some automated libraries may also need an additional product that can be integrated with the already existing system.

What software does the library need? How do you proceed to select the appropriate software you are looking for? Which criteria to consider? Here are a few guidelines to assist you in your selection.

Preliminaries

A packaged software is effective if it:

- meets all or a significant (70%) part of the specific requirements
- is well documented and has satisfying vendor support
- has easy, reliable and adequate interfaces for exchanging information with other packages (problem of compatibility with other software)
- includes specialised technology not available in-house
- does a relative standardized application which is acceptable to a large number of users

Before choosing software, various steps and precautions have to be taken:

- definition of short and long-term requirements
- survey of suitable in-house or external software packages
- checking compatibility with computer systems you have (MS-DOS, UNIX, Wincows, Apple, and so forth)
- checking flexibility to allow fixed as well as variable lengths of records
- user-friendly menus
- detailed and clear documentation/manual/support
- good quality of service from supplier (installation, maintenance and so forth)
- competitive price

Information Services Software Specifications

Below is the check list of points to be considered for an efficient system. These are numerous and their importance depends greatly on the library's short and long terms objectives. Should the system:

- have multi-users features?
- support most printers including laser?
- have a fast retrieval speed (under one second)?
- support batch processing?
- have an automated space recovery (no reorganisation needed)?
- have a context oriented help facility?
- allow application packages interface (API)?
- allow a recovery procedure in system (such as in case of power failure)?
- conform to the Digital Documentation Interchange Format (DDIF) for text and image management (such as for multi-media)?
- allow optical disk interface (such as for multi-media)?
- offer user identification, database and user security and access to shared resources (printers, file-servers, and so forth)?
- offer multiple database access?
- support monochrome and colour display?
- run on PC-based LAN?
- run on Novell netware and supports DOS?

Library and Documentation Requirements

The type of software to be selected depends on the applications the librarian needs. These may differ but a general approach to collect relevant information for the following various applications can be adopted.

System capability

The following aspects should be considered:

- provision to create structured database (bibliography)
- provision to use it for the following jobs:
  - on-line access catalogues
  - book acquisition
  - serials control
  - circulation control
  - SDI
  - literature-search
- provision to create user-friendly front-ends to all users (simple features) (over)

(cont.)

Guidelines for Selecting Library Automation Software (continued)

Database information

The following criteria should be considered for database information:

- no limitation of number and size of fields/records
- a facility to generate sub-fields and repeatable fields
- no limitation on number of databases being created and accessed simultaneously

Database definition

To facilitate database definition, it would be useful to have:

- data validation features and override options
- a deferred indexing option to facilitate searching and editing database simultaneously (changes are incorporated in the database at a later, more convenient time, which allows indexing only if okay)
- security provisions at field, records and database levels (password protection: read, write)
- a choice of index options
- a user-selectable stopword list
- a provision to add new fields to existing database without reloading
- a provision to change indexing options without reloading

Database entry

To enter data, the following options should be studied:

- multi-adaptor conversion facility to convert data from external sources for downloading either directly via ASCII, or indirectly through APIS
- import and export facility
- data update facility
- automatic space recovery
- batch modification and deletion of records
- full screen editor for data entry/editing

Database search

The following options could enhance searching:

- access to multiple databases for searching
- field specification search option
- nested Boolean operators
- right or left truncation
- range searching
- phrase and priority searching
- prompted searching (no need to remember field names)
- provision to save and re-execute search strategies
- facility to generate customised screens
- browsing through index
- grouping of fields for single step searching
- access to thesaurus or dictionaries

Sorting information

The librarian should be able to sort retrieved data, using a sort facility in ascending and descending sequences (word by word, letter by letter, ignore leading articles, and so forth) and indexes.

Monitoring and reporting

Often the results of the searches need to be packaged under a wordprocessing software in order to produce specific products for the library users. The system should offer:

- a facility to create customised reports
- an ability to display or print results in pre-selected format
- an ability to download into ASCII files
- an ability to monitor the users' searches

Available assistance

To assist the users, the following support is necessary:

- user-friendly menus
- screen indicators to show status of a record
- easy to use manuals
- in-house training
- and context sensitive help

Further reference documents to read on Information Retrieval Software:

- Directory of library automation software, system and services, ed. by Pamela Cibbavelli. Nedford (NJ): Learned Information Inc. 1993. ISBN: 0-98734-65-2.

Prepared by Marie Josee Jehl, IAALD Education and Training Committee, December 1994.

QUADRO 6

Formulário Utilizado pelo SIBi/USP para Pontuação de Itens Básicos ao "Request for Proposal" (RFP) - Etapa do "Request for Information" (RFI)

Especificação	Pontuação*		
	Fornecedor		
	A	B	C
1. Plataforma e arquitetura do sistema			
2. Conversão de arquivos e operações			
3. Funcionalidade			
4. Importação/Exportação de Dados			
5. Adaptação de alguns componentes do software à língua portuguesa			
6. Suporte técnico do fornecedor			
7. Base inicial de preço			
8. Modificações/ajustes do software para atender às necessidades da instituição			
9. Instalações efetuadas pela empresa			
10. Treinamento em português			
TOTAL			

* A pontuação poderá ter pesos relativos conforme as prioridades estabelecidas pelo cliente.

QUADRO 7

Instruções para o Preenchimento dos Formulários de Avaliação - RFP - SIBi/USP (Nov./95)

Os formulários são os instrumentos a serem utilizados individualmente, pelos componentes dos grupos, durante o processo de avaliação das propostas enviadas ao DT/SIBi pelos fornecedores de software.

A partir do texto do "Request for Proposal" (RFP), os formulários foram organizados e trazem indicações resumidas sobre os requisitos existentes no documento. Portanto, eles servirão para assegurar que as **revisões das propostas dos fornecedores** sejam feitas de modo mais objetivo e completo possível. Dessa forma, constituem um guia para a leitura de cada proposta de modo uniforme.

Os dados a serem indicados pelos avaliadores nos formulários são apenas três, para cada item descrito:

1) O item descrito é apresentado na proposta?

2) Em caso positivo, onde se encontra na proposta?

3) Ainda, em caso positivo, qual a avaliação de qualidade (pelo avaliador) em relação ao item apresentado pelo fornecedor?

Uma outra informação é que os formulários **não** devem ser meios de comparação entre as propostas, mas apenas direcionados a cada proposta **individualmente**. Após o preenchimento de cada formulário, os assessores deverão entregá-los a um dos elementos do Grupo, que posteriormente encaminhará o material à Comissão.

A seguir, as instruções para preenchimento.

(cont.)

Instruções para Preenchimento:

EXEMPLO DE FORMULÁRIO

O formulário traz a seguinte organização:

Avaliação de Proposta para o Sistema Integrado de Bibliotecas da Universidade de São Paulo

Planilha de Avaliação

Proponente: _____

Assessor: _____

Data: _____

	RFP página 3	Atendido?	Onde?	Quantidade?
	INTERFACES COM SISTEMAS EXTERNOS			
B	interface com sistemas computacionais gerais da USP			
B	interface com bibliotecas do Estado de São Paulo			
B	acesso de outras bibliotecas do Brasil ao sistema			
B	acesso a rede Internet			
D	acomodar "World - Wide Web"(WWW)			

"RFP Page..." → indica o número da página do documento original (RFP), a fim de que a descrição completa do item seja facilmente encontrada pelo avaliador.

1ª coluna (à esquerda) - As letras indicam:

B = - item obrigatório
N = - item necessário
D = - item desejável

2ª coluna - contém frases resumidas dos parágrafos da RFP. Portanto, antes de indicar a resposta, deve ser consultado o documento da RFP.

(cont.)

3ª coluna - ATENDIDO?

Destina-se a verificar se o item foi atendido na proposta. A resposta deve ter **YES** (SIM) ou **NO** (NÃO) nessa coluna, com base na letra indicada na 1ª coluna. Se o avaliador desejar incluir informações complementares, deverá anexar uma página em branco a essa folha, com suas observações (p. ex. se quiser comentar de que forma a proposta apresenta o item, etc.)

4ª coluna - Onde?

Destina-se a indicar a localização da resposta na proposta do fornecedor (ex: nº da página, nº da tabela, nº do apêndice e página, etc.) dependendo de cada caso.

5ª coluna - Qualidade?

No julgamento do assessor, a resposta do fornecedor atende ao requisito em que nível:

totalmente operacional	1 = atende **completamente** 2 = atende **em termos** 3 = atende **pouco** 4 = **não atende**
	5 = em desenvolvimento 6 = não disponível

Se o avaliador quiser incluir informações complementares, favor anexar folha com os comentários sobre o tópico.

FIGURAS

Figura 1 - Sistema Integrado de Bibliotecas da USP - Distribuição Geográfica das Bibliotecas que atendem às Unidades dos diversos "Campi"

LOCALIDADES

Bauru
Cubatão
Itú
Piracicaba
Pirassununga
Ribeirão Preto
São Carlos
São Paulo
São Sebastião

Figura 2 - Funções Integradas do Software de Bibliotecas para o Banco DEDALUS

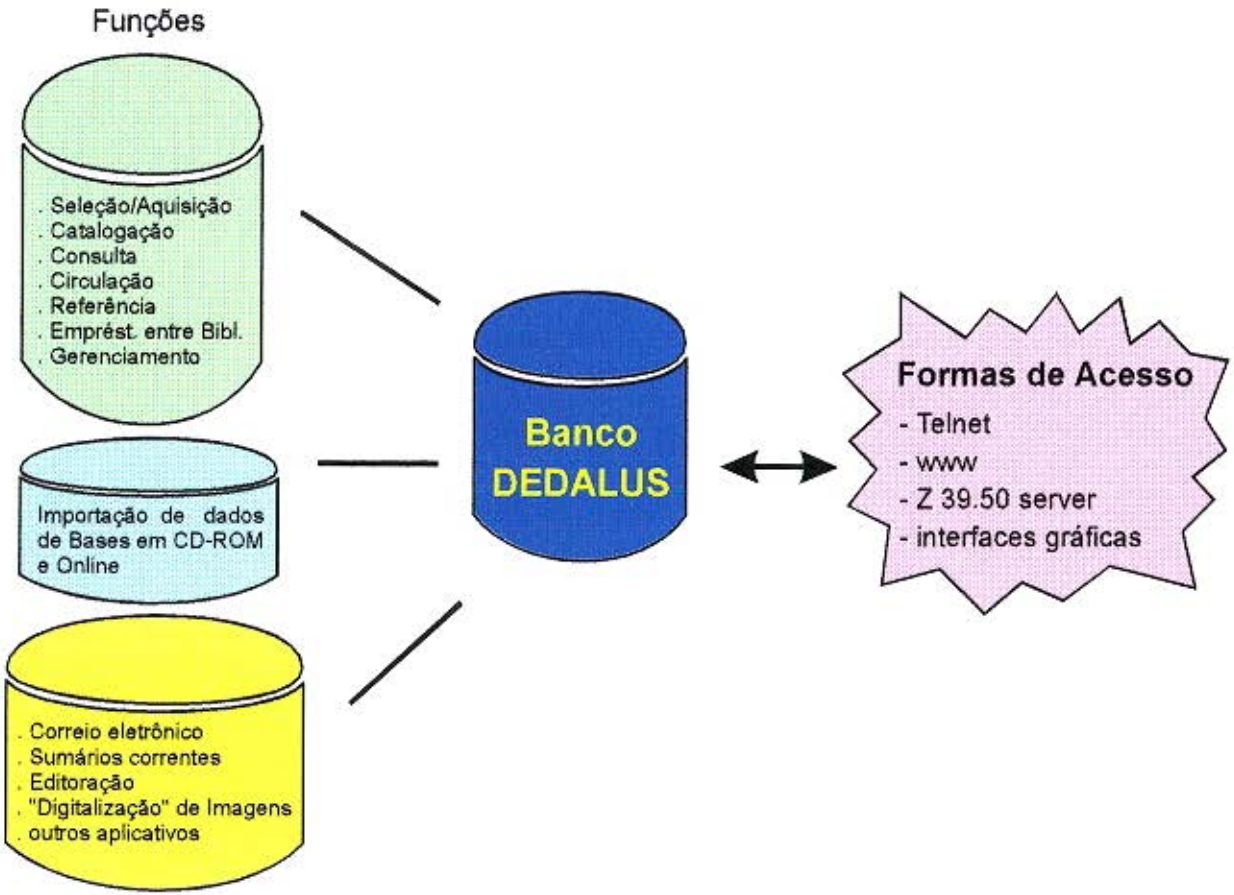

Figura 3 - Sistema Integrado de Bibliotecas - Arquitetura Cliente/Servidor para a SIBiNet no processo de modernização

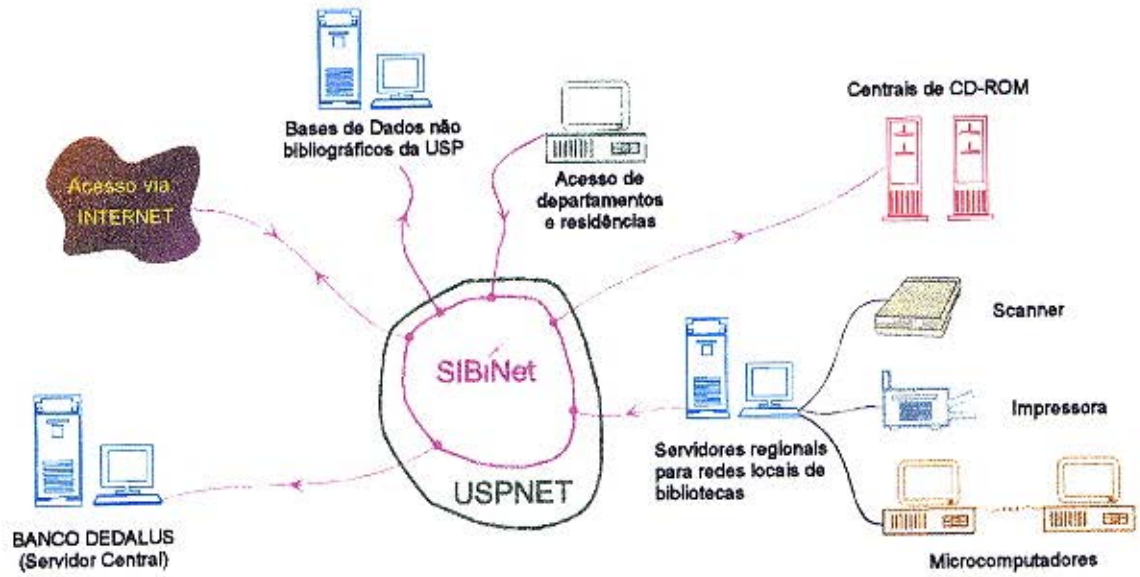

Figura 4 - SISTEMA INTEGRADO DE BIBLIOTECAS DA USP
Configuração da SIBiNET no Processo de Modernização

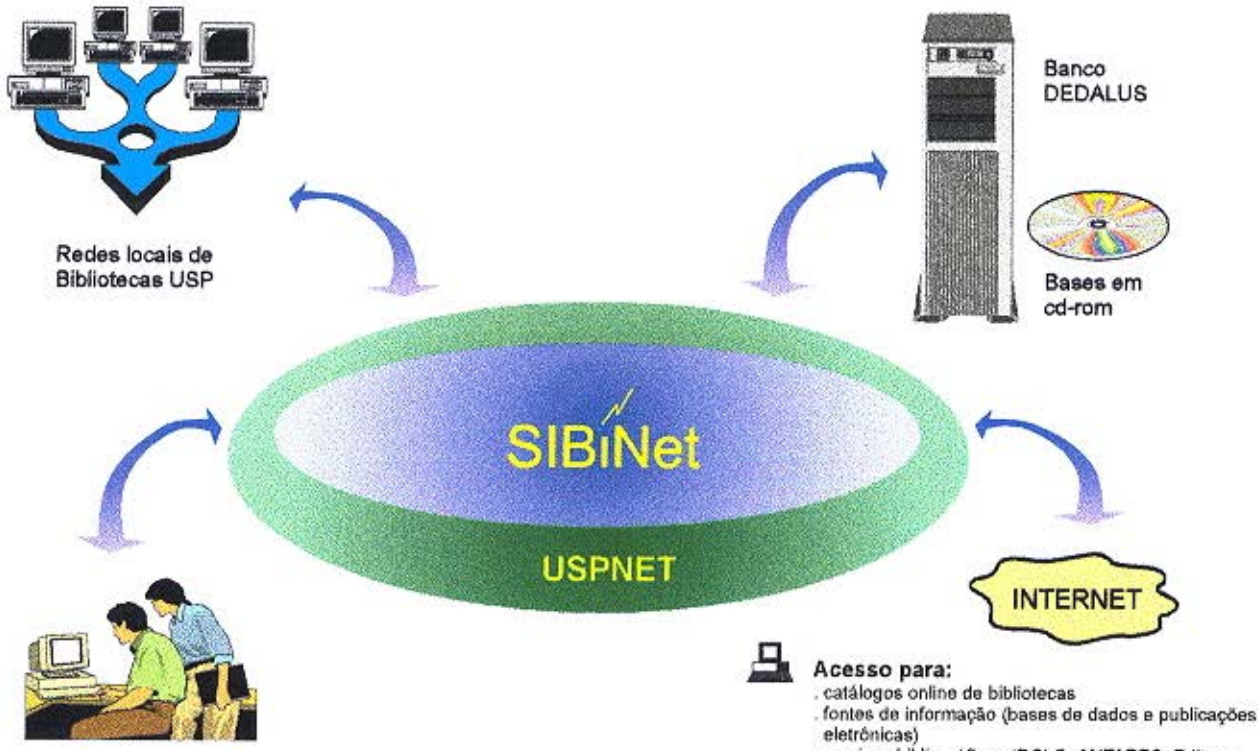

Figura 5 - "Comissão de Seleção e Acompanhamento da Implantação de Software/Hardware para o Sistema Integrado de Bibliotecas da USP"

Portaria GR-2971, de 11-10-95

Dispõe sobre a criação da Comissão de Seleção e Acompanhamento da Implantação de Software/Hardware para o Sistema Integrado de Bibliotecas da USP.

O REITOR DA UNIVERSIDADE DE SÃO PAULO, usando de suas atribuições legais, baixa a seguinte portaria:

Art. 1º - Fica criada, junto ao Departamento Técnico do SIBi, a Comissão de Seleção e Acompanhamento da Implantação de Software/Hardware para o Sistema Integrado de Bibliotecas da USP.

Parágrafo Único - A referida Comissão terá um Presidente a ser indicado pelo Reitor.

Art. 2º - As atribuições da Comissão de Seleção e Acompanhamento da Implantação de Software/Hardware para o Sistema Integrado de Bibliotecas da USP são as seguintes:

I - elaborar as especificações técnicas para aquisição de software;

II - avaliar os softwares existentes para tal finalidade, com objetivo de selecionar aquele mais adequado ao Sistema;

III - acompanhar a implantação do software no Sistema;

IV - acompanhar o cronograma de execução, bem como certificar-se de seu cumprimento;

V - emitir pareceres técnicos, quando necessário;

VI - elaborar relatórios parciais de acompanhamento e conclusivo sobre suas atividades.

Art. 3º - Durante as suas atividades a Comissão, ora criada, utilizará os recursos de infra-estrutura do Departamento Técnico do SIBi.

Art. 4º - A Comissão de Seleção e Acompanhamento da Implantação de Software/Hardware para o Sistema Integrado de Bibliotecas da USP terá a seguinte composição:

I - o Diretor Técnico do SIBi;

II - dois representantes da diretoria do DT/SIBi;

III - um analista de sistemas alocado no DT/SIBi;

IV - um representante do Departamento de Informática da CODAGE;

V - um representante do Centro de Computação Eletrônica;

VI - um docente, membro do Conselho Supervisor do SIBi;

VII - dois bibliotecários, membros do Conselho Supervisor do SIBi;

VIII - um consultor pertencente a uma das Unidades de Ensino e Pesquisa da USP;

IX - um consultor externo à USP;

X - dois consultores a serem indicados pela FAPESP.

Art. 5º - A Comissão de Seleção e Acompanhamento da Implantação de Software/Hardware para o Sistema Integrado de Bibliotecas da USP extinguir-se-á quando da total implantação do software.

Art. 6º - Esta Portaria entrará em vigor na data de sua publicação (Proc. USP nº 95.1.296.69.0).

Portarias do Reitor

De 11/10/95

Designando, nos termos do parágrafo único do artigo 1º da Portaria GR 2971/95, combinado com o inciso I do artigo 4º da mesma Portaria GR, a Sra. ROSALY FAVERO KRZYZANOWSKI, Diretora Técnica do SIBi, como Presidente da Comissão de Seleção e Acompanhamento da Implantação de Software/Hardware para o Sistema Integrado de Bibliotecas da USP; e, nos termos dos incisos II, III, IV, V, VI, VII, VIII, IX e X do artigo 4º da referida Portaria GR, para integrarem aquela Comissão, respectivamente:

a) a Sra. INÊS MARIA DE MORAIS IMPERATRIZ, Diretora da Divisão de Tratamento da Informação do DT/SIBi, e a Sra. MARCIA ROSETTO, Diretora de Serviço de Processamento Automatizado do DT/SIBi;

b) o Sr. AZIZ DONIZZETTI CAVALHEIRO SALEM, Analista de Sistemas alocado no DT/SIBi;

c) o Sr. MARCOS BORBA LEANDRO FERREIRA JARDIM, do Departamento de Informática da CODAGE;

d) a Sra. LEILA LAGE HUMES, do Centro de Computação Eletrônica;

e) o Prof. Dr. ARNALDO MANDEL, membro docente do Conselho Supervisor do SIBi;

f) a Sra. MARCIA CONCEIÇÃO SAMPAIO FERRAZ e a Sra. ROSA TEREZA TIERNO PLAZA, membros representantes dos bibliotecários da USP no Conselho Supervisor do SIBi;

g) o Prof. Dr. JULIO MICHAEL STERN, do Departamento de Ciência da Computação do IME;

h), o Prof. Dr. ROBERT M. HAYES, da Universidade da Califórnia - LA;

i) o Prof. Dr. MICHAEL ANTHONY STANTON, do Departamento de Informática da Pontifícia Universidade Católica/RJ, e o Prof. Dr. JOSÉ PALAZZO MOREIRA DE OLIVEIRA, do Instituto de Informática da Universidade Federal do Rio Grande do Sul;

(Proc. USP 95.1.296.69.0);

Figura 6 - Constituição das Comissões Assessoras para a Elaboração do "Request for Proposal"(RFP) do SIBi/USP

PROCESSO DE AVALIAÇÃO DE SOFTWARE INTEGRADO DE BIBLIOTECAS (NOV. 95)

GRUPOS DE TRABALHO

GRUPO 1

(GRUPO 1) **1A - GENERAL REQUIREMENTS**

MÁRCIA CONCEIÇÃO SAMPAIO FERRAZ (COMISSÃO)
PAOLA DE MARCO LOPES DOS SANTOS (ECA)
ROBERTO BARSOTTI (DT/SIBi)
IVANISE MARAVALHAS GOMES (DT/SIBi)
MARILY ANTONELLI GRAEBER (ICB)
MANOELA GEA CABREIRA REIS (EP)

(GRUPO 2) **1B - TECHNICAL PROCESSING**

ROSANE TARUHN (DT/SIBi)
VALÉRIA DOS SANTOS GOUVEIA MARTINS (FMVZ)
VANIA MARA ALVES LIMA (FAU)
MARIA INÊS CONTE (DT/SIBi)
ELISA CAMPOS MACHADO (IG)
MARCIA PILNIK (IEB)

(GRUPO 3) **1C - READER SERVICES**

ARIEDE MARIA MIGLIAVACA (DT/SIBi)
TELMA DE CARVALHO (FO)
ADRIANA FERRARI(FFLCH)
EIDI RAQUEL FRANCO ABDALLA (FSP)
MARIA DE FÁTIMA ALVES DE SOUZA (IF)
ELIANA DE AZEVEDO MARQUES (FAU)

(GRUPO 4) **1D - MANAGEMENT FUNCTIONS**

RAQUEL MARIA G. STURLINI (CQ)
REGINA CÉLIA B. BELLUZZO (FOB)
DULCINÉIA DILVA JACOMINI (FEA)
MARIZA LEAL DE MEIRELLES DO COUTTO (DT/SIBi)
MARTA TAGLIARI REYNALDO (IAG)
THELMA VITOLS CIARCIA (FM)

(GRUPO 5) **1E - DESIRED OPTIONAL FUNCTIONS**

ADRIANA HYPÓLITO (DT/SIBi)
MARIA CECÍLIA GONZAGA FERREIRA (HU)
VERA REGINA CASARI BOCCATO (FO)
NELSITA FERRAZ DE CAMPOS TRIMER (IB)
MÁRCIA REGINA FRANGUELLI (FE)
MARILZA APARECIDA RODRIGUES TOGNETTI (IFSC)

GRUPO 2

(GRUPO 6) **ELEMENTS OF SYSTEM SUPPORT**

LEILA LAGE HUMES (COMISSÃO)
AZIZ DONIZZETTI CAVALHEIRO SALEM (DT/SIBi)
MARCOS LEANDRO B. F. JARDIM (DIR/RUSP)
MARCIA ROSETTO (DT/SIBi)
JOSÉ PALAZZO M. DE OLIVEIRA (COMISSÃO)

GRUPO 3

(GRUPO 7) **CORPORATE QUALIFICATIONS**

ARNALDO MANDEL (COMISSÃO)
ROSA TEREZA TIERNO PLAZA (COMISSÃO)
SANDRA CRISTINA CAMPOS (DVPM/RUSP)
JÚLIO STERN (COMISSÃO)
MICHAEL ANTHONY STANTON (COMISSÃO)

GRUPO 4

(GRUPO 8) **COSTS**

ARNALDO MANDEL (COMISSÃO)
JÚLIO STERN (COMISSÃO)
AZIZ DONIZZETTI CAVALHEIRO SALEM (DT/SIBi)
MARCIA ROSETTO (DT/SIBi)
SANDRA CRISTINA CAMPOS (DVPM/RUSP)
MÁRCIA CONCEIÇÃO SAMPAIO FERRAZ (GRUPO 1)
ROSANE TARUHN (GRUPO 2)
TELMA DE CARVALHO (GRUPO 3)
MARIZA LEAL DE MEIRELLES DO COUTTO (GRUPO 4)
1 REPRESENTANTE DO GRUPO 5
LEILA LAGE HUMES (GRUPO 6)
ROSA TEREZA TIERNO PLAZA (GRUPO 7)

24/OUT./95

APÊNDICE

REQUEST FOR PROPOSALS

FOR AN AUTOMATED LIBRARY SYSTEM

FOR

UNIVERSIDADE DE SÃO PAULO -

SISTEMA INTEGRADO DE BIBLIOTECAS

Proposals must be submitted by the following deadline time and date:

5:00 PM, Sao Paulo Time
1 November 1995

to:

Universidade de São Paulo
Diretoria Técnica - SIBi
Av. Prof. Luciano Gualberto, Trav. J, 374 - 1° andar
Prédio Antigo da Reitoria
Cidade Universitária
05508-900 - São Paulo, SP - Brasil

São Paulo
1995

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SECTION 1. OVERVIEW

PURPOSE OF THIS REQUEST FOR PROPOSAL (RFP)

This Request for Proposals (RFP) solicits proposals to furnish the University of Sao Paulo, Brazil (USP) with an automated integrated library system consisting of hardware and software that will meet the requirements for operation of the library system of the USP. The hardware is to be installed 1 July 1996; software is to be installed and be fully operational by Jan 1997; the combined hardware and software system is to be tested for final acceptance and to be fully operational starting early in 1997. The system is to be maintained with guaranteed performance for a five-year period, until early in 2002, with continued maintenance thereafter to be renewed at the USP discretion.

The USP is using a Request for Proposal procurement process, including both a technical and financial evaluation before contract negotiation. After final evaluation, a contract is expected to be negotiated with the proposer who, in the sole judgment of the USP after consideration of the recommendation of the Executive Review Committee of SIBi, has submitted the proposal determined to be most responsive, cost-effective, and advantageous to the USP.

The USP reserves the right to reject any and all proposals, however.

The criteria and the process to be used for evaluation are more fully described in Section 2 of the RFP. The Instructions to Proposers are described in detail in Section 3. Sections 4 through 10 provide details about requirements and specifications for the system on which proposers should base their proposals. A few appendices are attached to provide details about aspects of the RFP beyond those presented in the RFP itself.

THE UNIVERSITY OF SAO PAULO

Appendix 1 to this RFP provides a description of the USP (Library sites). To summarize: The USP is the largest university in Latin America. It is located in the State of Sao Paulo, Brazil. It consists of 42 faculties at six campi distributed throughout the 74 million square meters of the State of Sao Paulo (at Cidade Universitaria and 5 other sites in the city of Sao Paulo, Sao Carlos, Ribeirao Preto, Pirassununga, Piracicaba, and Bauru) plus a large number of other facilities and locations. There are 5,380 academic staff, 16,000 administrative staff, and 60,000 students. Each year, about 7,000 new undergraduate students enter the University. A total of 188 undergraduate and 212 graduate courses are offered. About 1300 doctoral dissertations and 700 master's theses are produced yearly.

Of the campuses, that at the Cidade Universitaria, in the city of Sao Paulo, is the largest, with 22 faculties; it is the center for academic administration, for computer facilities, and for library system coordination. Two large faculties, Law and Medicine, and a few others while not physically located on the Cidade Universitaria, are nearby in the center of the city of Sao Paulo. Others are remotely located, from 150 to 300 km removed.

There are also two hospitals, four museums, and a USP Publishing House which publishes 50 new titles each year.

In order to meet these requirements, the USP has a yearly budget of $400 million provided by the State of Sao Paulo and with external grants from sponsoring agencies to carry out various projects and programs.

CURRENT RESOURCES & FACILITIES RELEVANT TO THIS RFP

Relevant details about library, computing, and telecommunications systems currently in operation at the USP are presented. To summarize: The USP Library System currently consists of 38 libraries in the faculties and, for several of them, multiple branches for a total of over 70 library locations. Library system integration, management of technical processing (acquisitions and cataloging), and maintenance of the centralized database called DEDALUS is provided by SIBi/DT (Sistema Integrado de Bibliotecas). There is also a Supervisor Council composed of Faculty and librarians representatives.

The library system has a collection of 3,500,000 volumes of printed monographs, serials, faculty production of publications, and student theses plus a variety of other media, such as CD-ROMs. It acquires about 40,000 volumes of printed materials each year and circulates on the order of 1,200,000 items per year.

It serves as a major library resource for the State of Sao Paulo, the country of Brazil, and other countries of Latin America and elsewhere in the world. Technical processing and some reader services are supported by DEDALUS, an automated bibliographic database developed and maintained by SIBi and operating on the campus computing system at the Cidade Universitaria. Several related services, such as Union Catalogs for libraries of the State of Sao Paulo, are maintained by SIBi as part of its services to communities at large.

For the purposes of this RFP, the 38 faculty libraries in order of size can usefully be divided into four groups:

Group A (7)		Group B (9)		Group C (11)		Group D (11)	
FM	BCRP	FAU	ICB	FMVZ	EEF	EE	IO
FD	DIDB	FEA	FO	MZ	IME	CBM	MAC
FFLCH		ECA	FOB	FSP	IG	HU	MP
EP		FE	EE-SC	IB	ICM-SC	IAG	MAE
CQ		IF		IP	IF-SC	IEE	FZEA
					IQ-SC	IEB	

Those in Group A are the largest faculty libraries, several of them with multiple branches. Those in Groups B, C, and D are in successive order of size.

The USP Computing System currently consists of a central computing facility with a large-scale Cray super-computer and a widely distributed set of UNIX based systems and microcomputers in each of the faculties, some of them integrated into local area networks within the faculties. It provides operating systems and software that support the needs of faculties and students for research and instruction.

The USP Telecommunication System provides high band width communication within each campus but depends upon normal telephone communication, at 64Kbps, for communication among campuses or to faculties located off campuses.

PLANNED FUTURE ENVIRONMENT OF RESOURCES & FACILITIES

The University Library System is expected to continue in its current mission, structure, and rates of growth for the coming five-year period. The system, the procurement of which is the objective of this RFP, should provide a totally new and effective means for improving internal operations and external services during the five-year period envisioned at this time.

The USP Computing System is to change significantly during both the immediate and longer term five-year period. The equipment which is to serve as the base for the system will be managed as part of total USP computing resources. In addition, a number of additional large-scale super-computers will be installed to increase ability to handle computing-intensive applications, such as image processing; there is to be a continued expansion in numbers of microcomputers, with increased capabilities.

The future USP Telecomunications System is intended and designed to carry all network traffic within the USP, including administration, research, and library networks. It will consist of backbones within each of the six major campi, connected in a star centered on the campus at Cidade Universitaria, currently using 64Kbps lines; the plans are to upgrade the star links to 2 Mbps, but doing so is not guaranteed to happen within the time frame of the project. It is planned that the backbones will connect all university buildings within each campus in a TCP/IP backbone using a mix of 100 Mbps FDDI, 10 Mbps Ethernet, and 9.6 to 64 Kbps serial connections. Each building is to have a local Ethernet network, to which a faculty library, if located there, will be connected. For all practical purposes, however, inter-library communication should be treated as being over the 10 Mbps Ethernet or even a narrower band: furthermore, five libraries are in buildings that will be connected to the main campus through serial lines, one of 9.6 Kbps and not to be upgraded and the others of 64 Kbps. Parts of the six backbones and of the local networks are already in place. Financial resources for the full set of backbones have been approved, with deployment to take place in 1996.

INTERFACES TO EXTERNAL ENVIRONMENTS

The system will need to interface with a number of external environments, as described in Appendix 2. First among them, of course, is the general USP Computing System, with which ready communication and easy transfer of data must be provided. Next there is the library network of the State of Sao Paulo, for which there must be means for ready dial-up access. In the same vein, there must be access from other libraries within Brazil. For that access, as well as for access to and from the world-wide community there must be access to the Internet. It would be desirable to accommodate such mechanisms of access as the "World-Wide Web".

SECTION 2. INSTRUCTIONS TO PROPOSERS

CONTACT PERSON FOR QUESTIONS & COMMENTS

Proposers are encouraged to raise questions or make comments concerning this RFP. However, any such communications must be submitted in writing to the following contact person not later than 1 October 1995:

Inês Imperatriz
DT/SIBi
Universidade de São Paulo
Av. Prof. Luciano Gualberto, Trav. J, 374 - 1° andar
Prédio Antigo da Reitoria
Cidade Universitaria
05508-900 - São Paulo, SP - Brasil
FAX: (5511) 815-2142
E-Mail : dtsibi@org.usp.br

No informal contacts, either oral or written or electronic, will be considered.

All questions will be answered by an addendum to this RFP following the date of 1 October 1995, and will be sent to all potential proposers who have received the RFP.

Should any potential proposer identify a significant error in this RFP, it is hoped that they will submit a comment, in writing, to the above named contact person, as soon as possible. Should it be necessary, as a result of such identification of errors, either by USP or a potential proposer, to revise the RFP, an addendum will be submitted to all potential proposers who have received the original RFP. However, the USP reserves the right to waive non-material errors or omissions in the RFP which, in its view, do not materially affect the description of USP objectives and requirements, the procurement process, or the ability of proposers to submit their proposals. In that respect, therefore, the USP reserves the right not to revise the RFP if, in its view, objectives can be satisfied without doing so.

SCHEDULE OF EVENTS

The following is the time schedule for events on which proposals and the process of procurement will be based.

TABLE 1. SCHEDULE OF EVENTS

RFP submitted to potential vendors	1 Sep 1995
Deadline for questions & comments	1 Oct 1995
Deadline for receipt of proposals	1 Nov 1995
Evaluation of proposals completed by USP	1 Feb 1996
Selection of successful contractor	15 Feb 1996
Formal contract signed	1 Apr 1996
Site preparation completed	1 Jun 1996
Hardware installation completed	1 Jul 1996
Database conversion and load	1 Sep 1996
Initial functional acceptance testing	1 Oct 1996
Online operation of in Group B libraries	15 Oct 1996
Online operation in all libraries	1 Jan 1997
Final acceptance test	1 Feb 1997
Fifth-year performance review	1 Feb 2002

After signing of the formal contract, the subsequent dates may change as a result of contract negotiations.

PROPOSAL DELIVERY

The proposal must be submitted to the address listed on the cover of this RFP and by the time and date listed there (the "deadline"). Any proposal received after that deadline will not be accepted and will be returned to the proposer unopened, with a cover letter stating that it was received after the deadline.

It is the sole responsibility of the proposer to meet the identified deadline, but it is urged that the date of transmission and means for delivery be chosen so as to assure that the deadline is met. The outside of the package containing the proposal must clearly identify it as "Proposal in Response to the Integrated Library System RFP of the University of Sao Paulo" and must clearly identify the name of the proposer.

Receipt of proposals will be acknowledged by USP within five days of receipt. No proposal will be opened by USP until after the deadline.

Only printed copies of the proposal will be accepted. Oral presentations or electronic transmissions (telephone, facsimile, E-Mail, or digitized formats) will not be accepted.

Once a proposal has been received, modifications of it will not be considered whether submitted before the deadline or after it. However, a proposal may be withdrawn upon request in writing submitted by the proposer prior to the specified deadline and filed at the address listed on the cover of this RFP. Such withdrawal would be without prejudice to the proposer, and a subsequent re-submission would be accepted provided it was submitted by the deadline.

Submission of a proposal will signify that the proposal, its substantive contents, and the costs presented in it are good for 120 days following the deadline date shown on the cover of this RFP. However, in the proposal the proposer must explicitly so stipulate.

PROPOSAL STRUCTURE

Proposals must be submitted in five separate sections:

(1) the substantive proposal,
(2) the system support section,
(3) the cost & contract section,
(4) vendor qualifications section,
(5) supporting documents, including appendices.

Each of those sections must be submitted in three copies and each must be in a three-ring binder so that pages can easily be removed for use or for photocopying.

THE SUBSTANTIVE PROPOSAL

The substantive proposal is the primary basis for technical assessment of the extent to which the proposal meets the objectives of USP. It must respond directly and completely to the requirements and specifications set out in Sections 4, 9, and 10 of this RFP.

Throughout the text, the following wording is consistently used in description of requirements and specifications:

"must" means that the text reflects a requirement that is intended to be met as stated
"should" means that the text reflects a requirement that is to be met, but the means for doing so potentially
may be different from the way it is stated
"desirable" means that the text reflects not a requirement but something that would be valuable if provided,
either as part of the delivered system or as an option.The USP will assess the relative importance of
various desirable features as they may differ from proposal to proposal.

However, the proposal should present what the proposer regards as the single best answer to the needs of the USP. That may involve departures from the requirements or specifications as stated; if so, the proposer is encouraged to identify exceptions and alternatives that are seen as necessary to provide the best possible answer to USP needs. The proposal should avoid presenting multiple strategies for meeting the essential USP needs, but it is recognized that it may be necessary to do so if proposed exceptions or alternatives are to be assessed.

In any event, though, the proposal must fully respond to the requirements and specifications set forth in Sections 4, 9, and 10 of this RFP. The proposal must unequivocally state the extent to which each requirement or specification is or is not met.

For those that can be met, an explanation must be provided of the means for doing so; for any that cannot be met, an explanation must be provided for why it cannot or perhaps should not be met. Any exceptions or alternatives must be explicitly identified, showing the requirements to which they relate, with clear explanation of the rationale for them.

The Substantive Proposal must be presented in the sequence as exhibited in this sub-section of the RFP, i.e.,:

General requirements
Software for essential modules
Software for desired optional modules
Hardware to meet functional requirements
Status of development & implementation

Cross-references may be used to avoid unnecessary duplication of data or description or to incorporate additional or appended materials.

THE SUBSTANTIVE PROPOSAL: GENERAL REQUIREMENTS

A set of general requirements is presented in Section 4 of this RFP. Those must each be directly addressed in this separate sub-section of the Substantive Proposal.

THE SUBSTANTIVE PROPOSAL: SOFTWARE FOR ESSENTIAL MODULES

The proposal must represent a fully implemented turnkey online software system including modules for at least the following essential library functions: library and system management, selection and acquisitions, cataloging and database maintenance, online public access to catalog data, serials control, materials management, circulation control including management of reserves, support to reference, interlibrary borrowing and lending, document delivery, gateways to a CD-ROM network and to Internet and other external environments.

Needs for those modules, as currently seen by USP, are presented in this RFP in the form of functional specifications in Section 9. Those specifications must be addressed in this separate sub-section of the Substantive Proposal.

The system to be accepted must pass live full-load benchmark and acceptance tests of the essential modules. Any or all parts of a proposer's proposal may be added at USP's discretion to the requirements for those tests and especially so if exceptions or alternatives have been presented.

THE SUBSTANTIVE PROPOSAL: SOFTWARE FOR DESIRED OPTIONAL MODULES

Desirable functions include: support to E-Mail within the library system and between the library system and its users, support to publication, support to journal citation management and search, support to tables of contents access. The proposal should

identify any of those desirable modules that are included in the proposed system, either as integral parts of it or as options.

Needs for those modules, as currently seen by the USP, are presented in this RFP in the form of functional specifications in Section 10. For those desirable modules that are included in the proposal, relevant specifications must be addressed in a separate sub-section of the Substantive Proposal. If none is to be included, there must be a specific statement to that effect.

The system to be accepted must pass live full-load benchmark and acceptance tests of any proposed optional modules. Any or all parts of a proposer's proposal may be added at USP's discretion to the requirements for those tests.

THE SUBSTANTIVE PROPOSAL: HARDWARE TO MEET FUNCTIONAL REQUIREMENTS

The system to be purchased must be treated as a total, integrated turnkey system, including hardware, software, installation, documentation, supplies, testing, training, migration of data files, and maintenance as necessary for full ongoing operation, all of which must be provided by the proposer or by previously approved subcontractors to the proposer. USP shall own all hardware.

The proposal must identify the computer hardware required to implement the software and to meet the requirements and specifications as proposed. The proposal must include all equipment necessary for reliable, effective operation, including uninterruptible power supplies, back-up equipment and procedures, and other means for ensuring that requirements continue to be met.

If there are substantial differences in the hardware needed to implement the software for the essential modules and that needed for the combination of essential modules and proposed desirable modules, the proposal must clearly identify those differences by category of equipment and, as appropriate, numbers of units.

The proposal may present alternative hardware platforms and/or vendors.

USP reserves the right to include consideration of changes in the quantities and types of equipment during contract negotiations, especially in the event that some equipment may already be owned by USP or may more effectively be separately acquired by USP.

Needs for hardware, as currently seen by the USP, are presented in this RFP in the form of hardware specifications in Section 11. The tables presented there identify both the existing equipment and the additional equipment visualized for the new system.

The system to be accepted must pass acceptance tests of all equipment, and especially of central main-frame facilities. Any or all parts of a proposer's proposal may be added at USP's discretion to the requirements for those tests.

The proposal should submit a detailed list of the site requirements for the equipment, especially for the central processing units. A detailed list of electrical, physical, and air conditioning requirements for the equipment should be included. Special conditions or restrictions should be identified.

Supplies necessary for the initial operation of the system -- such as disk packs and other magnetic media, cards for patrons, barcode labels for materials and patrons, special forms, paper and ribbons, etc. -- must be delivered as part of the initial installation. The proposal must list the quantities of those supplies necessary for the installation and initial operation of the system. The proposal must provide estimates of the quantity of supplies necessary for continued operation of the system, identifying necessary lead- times, recommended stock levels, and costs. Specifications for all supplies must be provided.

THE SUBSTANTIVE PROPOSAL: STATUS OF DEVELOPMENT & IMPLEMENTATION

For USP to assess the ability of the proposer to satisfy USP requirements and specifications, the proposal must declare in a separate sub-section the current (as of the date of the proposal) status of development and/or implementation of the means for meeting each function. Such declaration must be provided not only for functions as specified in this RFP but also for any alternatives presented in the proposal.

The following categories and the terms shown in upper case for each are to be used to characterize the status of development and/or implementation:

(1) OPERATIONAL. This means that the function is available and is fully operational at all user sites, whether actually in use or not.
(2) OPTIONAL. This means that the function is an option, installed at some user sites but not at others. Those sites at which it is installed should be identified.
(3) PILOT OPERATION. This means that the function is in a process of test and evaluation at one or more user sites. Those sites and the dates for beginning and ending testing at each should be identified.
(4) TESTING. This means the function is being tested in-house. The expected dates for completion of testing and transition into operation should be identified.
(5) DEVELOPMENT. This means that the function is at some stage in the sequence from detailed definition, to design, programming, checkout, or documentation. The expected date for completion of development and movement into testing should be identified.
(6) PLANNING. This means that the function is at some stage of early planning or definition. The exact status should be identified.
(7) NOT PLANNED. This means that there are no current efforts with respect to the function.

THE SYSTEM SUPPORT SECTION

The System Support Section must be presented in the sequence as exhibited in this sub-section of the RFP, i.e.,:

Installation & conversion of data & procedures
Training
Maintenance & support

Cross-references may be used to avoid unnecessary duplication of data or description or to incorporate additional or appended materials.

THE SYSTEM SUPPORT SECTION: INSTALLATION & CONVERSION OF DATA & PROCEDURES

In a separate sub-section, the proposal must respond to the requirements for installation and conversion of data and procedures as specified in Section 5 of this RFP.

THE SYSTEM SUPPORT SECTION: DOCUMENTATION, TRAINING & HELP

In a separate sub-section, the proposal must respond to the requirements for documentation, training, and help as specified in Section 6 of this RFP.

THE SYSTEM SUPPORT SECTION: MAINTENANCE & SUPPORT

In a separate sub-section, the proposal must respond to the requirements for maintenance as specified in Section 7 of this RFP.

THE PROPOSER QUALIFICATIONS SECTION

The proposal must provide data on which USP can base its assessment of the proposer's financial, managerial, and technical stability. This section of the proposal should be provided in three copies, in 3-ring binders, separate from the substantive proposal and the cost section.

CORPORATE DESCRIPTION

This section of the proposal must include a brief description of the company and, as appropriate, of any parent corporation. That should include a history and a description of corporate organization and staffing, with emphasis on those personnel assigned to library applications. The persons who will be primarily responsible for implementation of the system at USP should be explicitly identified and brief resumes provided for each of them.

FINANCIAL CONDITION

This section of the proposal must provide a complete copy of the most recent, audited financial statement for the overall corporation and for the branch that will be specifically responsible for implementation of the system at USP. These must be certified by an officer of the company, and the audit must be certified by the Certified Public Accountant or accounting firm responsible for its preparation.

The proposal must provide the name, address, and telephone number of the person to contact in the company's principal financial or banking organization.

The proposal must disclose any and all judgments, pending or expected litigation, or other real or potential financial reversals which might materially affect its financial stability. If there are none, the proposal should warrant that no such condition is known to exist.

The proposal must identify any and all conditions within the past five years in which there has been a termination of contract for failure to perform, and for each provide details about the conditions leading to such termination and identify the other party's name, address, and telephone number. If there have been no such terminations, the proposal should so warrant.

EXPERIENCE

This section of the proposal should identify customers who have purchased integrated library systems from the proposer. At least one of those customers must be an academic library of approximately the size of the USP, as measured by the volumes held. For each identified installation, the proposal should provide data about the size of operation, including number of US-MARC records stored online, number of terminals, number of circulation loans each year, and similar relevant data.

PROPOSED MANAGEMENT PLAN

This section of the proposal must describe how the proposer intends to manage and execute the work necessary to provide the system within the time schedule identified in this RFP. A time schedule of activities and events must be presented covering each of the major components included in the substantive section of the proposal, showing when they will be initiated and completed. It must provide checkpoints at which USP can review progress and assess the extent to which expectations have been met.

This section of the proposal must explicitly identify any responsibilities and activities which will be required of USP in order to assure successful installation and operation of the system.

THE COST & CONTRACT SECTION

As specified above, the cost & contract section of the proposal is to be submitted in three copies, each in a three-ring binder, as a separate volume of the proposal so that assessments of the substantive proposal can be considered without reference to the associated costs.

COST PROPOSAL

The proposal must provide an itemized list of both initial costs and continuing costs over a five-year period. Costs shall include all equipment, supplies, software, delivery, installation, maintenance, training, and all other related costs. All costs should be stated as unit prices extended to the number of units required to meet the requirements and specifications as dealt with in the substantive proposal. If non-linear pricing model is adopted, it should be clearly described.

The schedule of costs for both software and hardware should explicitly identify those involved in providing the essential modules for the system, as identified and specified in Section 9. It should separately identify those involved in providing any desired optional modules, as identified and specified in Section 10, and do so both for each module which it is proposed be provided and in total.

If alternative hardware platforms and/or vendors are presented in the sub-section on hardware, the proposal must explicitly identify the costs associated with each such alternative.

The proposal must explicitly identify any restrictions on the use of the software that lead, directly or indirectly, to costs for the use of the software in meeting USP requirements, such as costs associated with network access.

The proposal must identify the proposed schedule of payment.

CONTRACT PROPOSAL

Brazilian law is to be the governing law for the contract.

The RFP and the selected proposer's substantive proposal will become part of the formal contract between the USP and the proposer.

The proposal must identify any restrictions on the use of the software, and those restrictions must be fully compatible with the requirements in USP use.

The contract for the system is to be of five years duration or until the fifth year performance guarantees have been met, whichever comes first. The initial maintenance agreement for hardware and software will be one year, with one year extensions, year by year at the USP option.

The proposer is to warrant that the software to be provided contains no "computer viruses". The proposer is to warrant that there are no codes or instructions by which any external person could access, modify, delete, damage, or disable the USP data files or computer system. If any third party software is incorporated in the system, the proposer is to warrant that comparable warranties have been obtained from such vendors and that they may be enforced by the USP.

The proposer must explicitly state that either it is the owner of all software involved in the system or that it has the right to provide the USP with fully paid-up licenses to use the software.

If any third party software is included in the system, the proposer must provide fully paid up licenses to run such software for the duration of the contract.

The proposer must agree that the USP will have access to the application software source code if at any time the proposer either is no longer in business or is for any reason unwilling or unable to maintain the system. To ensure that this requirement will be met, it may be required that the a copy of the software source code be placed in escrow.

SECTION 3. EVALUATION OF PROPOSALS

This section of the RFP presents the criteria by which proposals will be judged and the process by which the assessments will be made.

EVALUATION CRITERIA

The USP has established a set of criteria that will be used in assessing the proposals. They are listed below. The primary source of data for determining how well each proposer satisfies the criteria will be the proposal itself. However, USP will also consider information from other sources (such as other documentation from the proposer, data from other users of the system, proposer demonstrations, past service record of the proposer, etc.) in making its decisions. Acceptance of the selected proposer's proposal will be subject to the availability, approval of expenditure, and appropriation of funds by USP.

Each proposal will be evaluated both individually and in comparison with other proposals submitted. Discussions and negotiations may be entered into by USP with one or more vendors at the discretion of USP. USP may then select a proposer with whom to negotiate a contract based on the proposal.

In evaluating the proposals and determining the selected proposer, USP will consider the following criteria:

CAPABILITY OF THE VENDOR TO DELIVER & TO PROVIDE SUPPORT SERVICES

- The quality of the proposer's performance on previous contracts and services, including at least one academic library of a size comparable to USP, will be considered as means for assessing the capability to deliver the system to USP. The proposal must identify previous customers and persons to serve as references. Those references and other relevant sources for such previous contracts and services will be contacted for information about prior performance.

- The financial, managerial, and technical stability of the vendor will be considered. The proposal should therefore provide evidence to demonstrate continuing financial viability and a history of managerial and technical continuity.

- The extent to which there will be future continuing commitment to maintenance of the proposed system and its operation at USP will be considered. The proposal should therefore provide evidence of the means for such continuing support.

- The ability to provide support onsite at USP for maintenance of the installed system and for support to its operation and use will be considered. The proposal should explicitly identify means for providing such onsite support.

- The ability to minimize downtime of the system and to reduce the mean-time to repair hardware and software problems will be considered. The proposal should explicitly identify the means for rapidly dealing with and recovering from system failures.

- The availability of local services for hardware maintenance and repair will be considered. The proposal should therefore identify the means for providing such services.

- The hours of availability of support to software maintenance and operation will be considered. The proposal should identify those hours as they relate to the Sao Paulo time zone.

- Evidence of the capability of the proposer to ensure delivery and installation of the system and software will be considered. The proposal should therefore provide evidence of the ability to perform within the time proposed.

HARDWARE & SOFTWARE PERFORMANCE

- The extent to which the proposed system meets the requirements and specifications, taking duly into account proposed exceptions and alternatives, will be considered. The proposal must therefore address explicitly each of the requirements and specifications, identifying the extent to which it is or is not met and, as necessary, identifying the effects of exceptions or alternatives.

- The flexibility and ease of use of the proposed system, including the extent to which it accepts user-generated and user-maintained reference tables and supports ad-hoc inquiries and report specifications will be considered. The proposal should therefore identify the extent to which such flexibility can be accommodated and the means by which it is provided.

- The ability to accept, display, change, and output full US-MARC records in all formats is an absolute requirement. The proposal must explicitly identify that it has been met.

- The ability to support use of multiple languages in all functions, and especially in user interfaces, with easy means for switching among them will be considered. The proposal must explicitly address the extent to which multiple languages can be accommodated and the extent to which Portuguese, Spanish, and English, in particular, currently are included.

- The ability to provide gateways to other networks will be considered. The proposal must therefore address the means for providing such interfaces and the extent to which they conform with accepted standards, such as Z39.50.

- The ability to produce reports as needed both for management of the system and for management of the library system and the faculty libraries individually will be considered. The proposal must therefore identify if there are limitations on the ability of

the proposed system to provide reports (such as there being only a defined set of reports that the system provides); if there are no such limitations, the proposal should so stipulate.

- The ability to provide support to the library system in assessing performance of the system and in identifying potential problems will be considered. The proposal should identify any statistics about operation of the system that, in the experience of the proposer or of installations, are most valuable doing so.

TIME SCHEDULE

- The extent to which the proposal demonstrates an ability to meet USP requirements for delivery, installation, and conversion of data and operations into full operational status within the time schedule provided will be considered.

CONTRACTUAL PROVISIONS

- The extent to which the contractual provisions proposed by the proposer are consistent with those required by USP will be considered.

COST

- The total cost assessment will be based on including both initial costs for hardware, software, installation, supplies, conversion, and training and the present value of continuing costs over a five year period for maintenance, support, and supplies. In this respect, the proposer with the lowest purchase cost may or may not be the one with the lowest total cost.

- USP reserves the right to consider, in the negotiation of contract with the selected proposer, areas in which USP may be responsible for purchase of some of the equipment necessary to implement the software system. In doing so, USP may make its own assessment of the cost for hardware, both initial and continuing, based on the hardware specifications provided in the proposal.

- The consistency of the proposed schedule of payment with the expectations of USP will be considered.

OTHER CRITERIA

- The quality of the proposed training program will be considered. The proposal should therefore provide details about the nature of that program, the associated documentation and means for instruction, the role of online help, and similar aspects of training. Of special importance is the means for providing staff of USP with the skills and tools to provide such training for other USP library staff.

- Ability of the proposed system to adapt to future changes in hardware and software technologies will be considered.

- The ability of the system to serve additional requirements that may be identified by USP in the future, after installation and operation, will be considered.

Such other factors as USP may deem relevant will be considered.

EVALUATION PROCESS

A set of USP Evaluation Teams, each focused on a specific aspect of the RFP, will evaluate the functionality, quality, suitability, and adaptability. A separate USP Evaluation Team will assess the costs of the proposed systems and the corporate qualifications of the proposers. These teams will make independent rank order assessments and recommendations to the USP Executive Review Committee which will then weigh and compare them to arrive at it final rank order evaluations and decisions. USP will then select the proposer who, in the view of the USP, presents the most advantageous proposal.

In is possible that, based on the assessments by the Evaluation Teams, a list of as many as three proposals may be established as the basis for more detailed discussions and demonstrations of the proposed systems at mutually agreed upon sites. In that case, the decision by the Executive Review Committee will then follow the conclusion of those discussions and demonstrations.

Following that selection, negotiations would then be started with the selected proposer in order to arrive at a mutually agreeable contract.

SECTION 4. GENERAL REQUIREMENTS

To reiterate, in this section of the RFP, the following wording is consistently used:

"must" means that the text reflects a requirement that is intended to be met as stated
"should" means that the text reflects a requirement that is to be met, but the means for doing so potentially
may be different from the way it is stated"
"desirable" means that the text reflects not a requirement but something that would be valuable if provided,
either as part of the delivered system or as an option.The USP will assess the relative importance of
various desirable features as they may differ from proposal to proposal.

SYSTEM STRUCTURE

The database structure must be designed around an integrated bibliographic database covering all collections of the USP as a whole. However, since the collection is physically distributed among 38 separate faculty libraries and one technical department (SIBi/DT), the users, including the library staff, associated with each faculty library must have the capability in all operations either of viewing the collection as a whole or of focusing on those materials associated with that specific faculty library. The system file structure must therefore provide means for the user easily to switch between one view and the other, at the user's choice at any time during any session in use of the system or any of its modules.

The software structure should be modular, so that individual modules can be modified or replaced easily. The specifications presented in Sections 9 and 10 are presented in terms of such a modular structure, but that is not intended to be prescriptive of the modular structure to be embodied in the proposed system.

CONTROL OF ACCESS

The system must incorporate means for control of access by different categories of person, different terminals, different modules and functions within them, and different means for use of them. The means for control must permit the USP to specify the basis for access, both centrally and, for specific users, terminals, modules and functions, and uses, at faculty libraries.

SUPPORT TO LIBRARY & SYSTEM MANAGEMENT

The system must incorporate means to provide information for the purposes of library and system management. In part, this requirement is represented in the Library Management module, but it must be regarded as a general requirement. The system must provide information in support of library management of day-to-day operations (such as

scheduling of workload, assignment of tasks, and evaluation of performance), in the allocation of staff and other resources, in budgeting and funding, and in the assessment of services to users.

The system must provide means for support of management of the system, especially with respect to the detection and prevention of system failures.

The system must support the needs for information to support library management and system management both centrally and at each faculty library.

WORKLOADS & RESPONSE TIMES

The proposed system must be able to handle operational workloads with response times rapid enough to assure that the activities of users are not adversely affected by the system. For purposes of system design, Table 2 lists workloads and associated response times for selected functions: they are intended to be indicative of the desired performance of the system during the first year after the date of acceptance. In the same vein, Table 3 lists workloads and associated response times that are to be indicative of the performance of the system during the fifth year after the date of acceptance.

Unless modified by mutual agreement during contract negotiation, the values for workloads and response times shown in Table 2 will be the basis for acceptance testing. In this respect, it is important to note that the number of functions included has been deliberately reduced to a minimum to simplify the process of testing, but that should not be interpreted as reducing the requirements for providing response times that meet the fundamental requirement that users not be adversely affected by the system. The proposer is encouraged to identify other means for assuring that the fundamental requirement is being met, and if deemed by USP appropriate to do so, they may be considered in contract negotiation and may, as a result, replace those shown in Table 2 and/or Table 3.

It is recognized that response time requirements are essentially subjective, that for some functions there are no current data on which to base expectations, and that actual performance of the system may vary due to many factors, both in operation and design. Therefore, if the proposer's approach to system design implies substantially different response times, replacement values must be clearly and explicitly identified together with explanation of the reasons for such replacements and of the effects of them upon the requirement that the response time be rapid enough to assure that activities of users are not adversely affected. Any replacement values and associated rationales will be considered in evaluation of the proposal and in subsequent contract negotiation with the successful proposer.

The proposal should identify the extent to which response time performance is affected by the bandwidth provided by the USP telecommunications system, with specific attention given to the parameters presented in Section 1 in the description of the present and planned future telecommunications network.

Unless modified by mutual agreement during contract negotiations, the values for workloads and response time shown in Table 3 will be the basis for the proposer to contractually guarantee that these performance levels will be met. If the performance levels cannot be maintained over the five year period, the proposer must supply additional equipment and/or software at the proposer's expense, including maintenance, as may be necessary to meet these specified performance levels.

Tables 2 and 3 show the estimated total of all types of transactions from all service locations and technical services units; in each case, transactions are completed activities, not the number of times the return key is used. The average hourly load and the projected peak load shown in the tables either reflect the expected values or have been derived from the annual workload on the basis of 2000 hours per year, with the peak load taken at twice the average. The response times shown are to represent the average over all workload during periods of testing. For purposes of acceptance testing, the peak load response times are to be in the context of peak loads on all modules and functions, not just those of the specific function.

For any response exceeding 2 seconds, the system must provide a periodic message to the effect "Transaction in Process" that is visibly updated at least every 2 seconds. It is desirable for the system to provide in such display a means for indicating the likely remaining time for processing.

TABLE 2. PERFORMANCE LEVELS -- YEAR 1 (1996-1997)

TRANSACTION TYPE	ANNUAL	PER HOUR WORKLOAD (AVERAGE)	(PEAK)	RESPONSE TIMES (AVERAGE)	(PEAK)
CIRCULATION FUNCTIONS					
Circulation Transactions	1,250,000	625	1250	2 sec.	3 sec.
Patrons Added/Changed	80,000			3 sec.	6 sec.
TECHNICAL SERVICE FUNCTIONS					
Items Ordered/Received	140,000	70	140	3 sec.	4 sec.
Items Added/Changed/Deleted	180,000	90	180	4 sec.	6 sec.
READER SERVICE FUNCTIONS					
OPAC Query, Non-Boolean	1,000,000	500	1000	3 sec.	5 sec.
OPAC Query, Boolean	100,000	50	100	5 sec.	8 sec.
Interlibrary Loans	35,000			5 sec.	5 sec.
Interlibrary Borrows	10,000			5 sec.	5 sec.

TABLE 3. PERFORMANCE LEVELS -- YEAR 5 (2001-2002)

TRANSACTION TYPE	ANNUAL	PER HOUR WORKLOAD (AVERAGE)	(PEAK)	RESPONSE TIMES (AVERAGE)	(PEAK)
CIRCULATION FUNCTIONS					
Circulation Transactions	1,800,000	900	1800	2 sec.	3.sec.
Patrons Added/Changed	180,000			3 sec.	6 sec.
TECHNICAL SERVICE FUNCTIONS					
Items Ordered/Received	160,000	80	160	3 sec.	4 sec.
Items Added/Changed/Deleted	200,000	100	200	4 sec.	6 sec.
READER SERVICE FUNCTIONS					
OPAC Query, Non-Boolean	1,500,000	750	1500	3 sec.	5 sec.
OPAC Query, Boolean	150,000	75	150	5 sec.	8 sec.
Interlibrary Loans	50,000			5 sec.	5 sec.
Interlibrary Borrows	15,000			5 sec.	5 sec.

LANGUAGES OF OPERATION

The system must be able fully to operate in multiple languages. Specifically, it must provide for operation in Portuguese, Spanish, and English, with full diacritics, in all user displays and menus. There must be easy means for switching from one language to another without any necessity for exiting from system operation at the time it is desired to do so.

It is desirable to be able to include additional Roman aiphabet languages, with full diacritics, with such switchability by choice.

SYSTEMS REQUIREMENTS

The system must be "open" in the sense that the software is based on standards that are vendor independent and commonly available, that the software can be moved to and executed on various computer systems, and that data can be easily output and transported to and from other software systems.

The system must provide ready and easy means for export of bibliographic data and authority file data to other systems and import of data from them, in US-MARC format. The system must provide ready and easy means for export and import of bibliographic data in other formats, such as UNIMARC (which is used by several collaborating institutions). In particular, the system should be able to exchange data with several MICRO-ISIS databases installed and operating in many libraries. The system must

provide ready means for import of data for other operational files (such as patron files for the circulation system, to be loaded from USP administrative databases; book vendor files, to be loaded from SIBi administrative databases; serials holdings files to be loaded from MICRO-ISIS databases).

The system must be fully UNIX compatible. The system must be fully consistent with a client/server operation.

SYSTEM AVAILABILITY & RELIABILITY

Regularly scheduled downtime must not exceed 2% of the total 168 hour operating time during each week. Such downtime must be scheduled at hours that do not interfere with normal daytime operation during the week. Apart from regularly scheduled downtime, all online functions of the system must be continuously available 24 hours a day, seven days per week, 52 weeks per year. The system must be fully functional for use by both USP staff and patrons for at least 98% of the time (exclusive of scheduled downtime), as a running average over 30 days of operation.

The system should be able to function reliably in a partially connected network, recognizing that some functionalities may be lost and that disconnected clients may not be served under those conditions.

The proposal must identify procedures for appropriate backup of data files and for fail-safe operation and protection of data files in the event of central processing unit failure, disk failure, or telecommunications failure. The proposal must provide alternative procedures for circulation and reserves operations when the system is down. The proposal should identify the extent to which backup can be scheduled so as to minimize its effects upon operations and services.

OPERATION OF TERMINALS

The system should support both text-based and graphical user interface (GUI) operation. It should support PC, Mac and X-terminals. It should support both menu driven and command driven operation.

SOFTWARE & HARDWARE ENHANCEMENT

The system package must include means for software and hardware enhancement, with training support to ensure effective use of new or enhanced features, and must define minimal hardware and operating standards to effectively run the improvements.

RIGHTS TO USE OF SOFTWARE

Right to use of all software, both system and application, for the system must be guaranteed to the USP in perpetuity.

SECTION 5. INSTALLATION & CONVERSION

A major concern in implementation of the new system is the process of installation and the ease of conversion to it, including conversion both of data and of procedures in operation.

INSTALLATION

The proposal must provide a detailed plan for installation of the proposed system, showing the sequence of events and the time schedule for each. The plan must include, but should not be limited to, events related to installation of hardware, acceptance testing of hardware, installation of software, conversion and migration of data as necessary for initial acceptance testing of the software, initial acceptance testing of the software, final acceptance testing of the entire system (hardware and software combined).

The proposal must specify the percentage of records for the main bibliographic file that must be completely converted and migrated to the new system, as discussed below in the process for data conversion, first, in order to assure effective acceptance testing and, second, as necessary for full-scale operation.

The proposal must provide a detailed plan for phasing into full-scale operation including events for the conversion and migration of data as necessary for full-scale operation and for conversion of procedures and operations.

In its own planning for phasing into full-scale operation, the USP has visualized two phases for conversion and migration of data and conversion of procedures and operations, in which the first phase would be limited to all libraries in Group B; the second phase would then include all remaining libraries (i.e., Groups A, C, and D). The proposal must specify whether that phasing is acceptable to the proposer as the basis for the installation plan or whether an alternative phasing is to be used instead and, if so, what the alternative phasing is proposed to be.

In its own planning for conversion and migration of data, the USP has assumed that for operating files other than the main bibliographic database, it would be feasible to begin effective operation of the system with minimal numbers of records, necessary additions to those files then occurring as a result of normal ongoing operation of the system. The proposal must stipulate whether that approach will be effective; if so, the proposal must specify the minimal number of records for each operational file that must be available for effective operation; if not, the proposal must specify an alternative basis for conversion and migration of data for those files.

The proposal must identify the extent to which operation of the current system in parallel with the new system, once installed, will be required, and must provide a schedule for transition from the one to the other

CONVERSION & MIGRATION OF DATA

The USP intends to transfer to the system all possible existing data files, including but not limited to bibliographic and item records, authority records, serial holding records, fiscal records, and patron records.

The principal data file is the DEDALUS database. It consists of records for a variety of kinds of materials, as shown in the following table:

TABLE 4. CONTENTS OF THE DEDALUS DATABASE

Type of Material	Current File Size	Yearly Growth	Record Format
Monographs & non-serials	1,030,000	100,000	US-MARC, Level 1
Serials			
• Titles	40,000	1,000	US-MARC, Level 1
• Collections	70,000	800	US-MARC, Level 1
• Updates		65,000	
Theses	34,000	2,000	Bibliographic
Faculty Production	140,000	17,000	Bibliographic
Special databases	2,000	200	US-MARC, Level 1

The data for yearly growth combine entry of both new records and backlog records from prior databases.

In addition to these current records, a portion (currently estimated at 40,000 records) of the 1,030,000 monographic and 110,000 serial records will be replaced by full US-MARC records stored on magnetic tapes for one of the Type B faculty libraries.

Other data files currently exist in the following locations and formats:

authority records, on magnetic tapes in US-MARC format
item records, in manual files at 38 faculty libraries
in-process records, in manual files at SIBi
patron records, in machine files and manual files at 38 faculty libraries
circulation transactions records, stored in manual files at 38 faculty libraries

The most important conversion task is to create the system bibliographic database, since it will serve as the foundation for the system and specifically for all modules that involve maintenance of it and access to it. It should be derived from the bibliographic records now stored in DEDALUS, as augmented by the portion to be replaced by full US-MARC records. The authority records necessary for operation of the bibliographic database

should be derived from the DEDALUS records and/or from the magnetic tape authority records stored on magnetic tapes.

Other files, as necessary to support functional requirements for modules such as acquisition and circulation, are to be converted from the manual files to the extent necessary to implement the system and bring it to a functioning status, with further conversion occurring as a result of operation of the system.

The following is the process for conversion and migration of data files as it is currently perceived by the USP libraries.

Task	Responsibility
Specify data formats in ISO 2709	Vendor
Develop software for converting DEDALUS	USP/SIBi
Convert DEDALUS data to specified formats	USP/SIBi
Migrate DEDALUS derived data to new system	Vendor
Evaluate quality of migrated DEDALUS records	USP/SIBi
Provide full US-MARC records for selected materials	USP/SIBi
Migrate provided full US-MARC records to new system	Vendor
Evaluate quality of migrated full US-MARC records	USP/SIBi
Develop software to create authority records	USP/SIBi
Create authority records in specified formats	USP/SIBi
Convert auxiliary tables to specified formats	USP/SIBi
Migrate authority and auxiliary records to new system	Vendor
Evaluate quality of authority and auxiliary records	USP/SIBi
Convert data for other files to specified formats	USP/SIBi
Migrate data for other files to new system	Vendor
Evaluate quality of migrated file data	USP/SIBi

The proposer should present a scenario of the process proposed for conversion of all files, including the recommended time sequence in conversion and a proposed division of responsibilities between the proposer and USP. It may be based on that shown above or may be different, but it should reflect the proposer's views of the most effective process for accomplishing the objectives.

CONVERSION OF PROCEDURES & OPERATIONS

The proposer should provide manuals defining the procedures necessary for effective use of the system. Recognizing that USP must be responsible for conversion of its procedures to those identified in manuals provided by the proposer, it would be desirable for the proposer to identify what, in its experience in such conversions at prior installations, is necessary to do so.

SECTION 6. DOCUMENTATION, TRAINING, & HELP

Documentation, training, and help support to staff of the USP library are essential to effective operation of the system at USP.

DOCUMENTATION

The proposal must include documentation for the proposed hardware and software that is sufficiently complete and descriptive to provide the USP with a basis for assessment both of the operability of the system and of the general quality of the documentation itself.

The proposer must provide full and complete printed documentation for the entire hardware system and, as appropriate, for each component sub-system, to be delivered no later than the beginning of installation of the hardware. The hardware documentation must be provided in English. It is desirable for it to be provided in Portuguese as well.

The proposer must provide full and complete printed documentation for the entire software system and for each module, to be delivered no later than the time scheduled for the first training session. It must describe the functionality and use of the system and of each module. It must be provided in English. It is desirable for it to be provided in Portuguese as well.

The documentation must provide detailed instructions for solving standard problems and general instructions for solving any other problems. Those instructions must be provided in both Portuguese and English.

All documentation must be adequately indexed so that users can quickly locate needed portions of the text. Indexes must be provided in both Portuguese and English, even for documentation that may be provided only in English.

The proposer must provide full and complete operator manuals for both the hardware and the software, covering the total system and each hardware sub-system and software module. These manuals are to be delivered in sufficient numbers of copies to assure that all required operating staff will have ready access to them; the delivery must be no later than completion of installation of the hardware and of the software, respectively. The operator manuals must be provided in both Portuguese and English.

The proposer must provide updates, on a continuing and timely basis, during the five-year period of the contract as necessary to reflect changes that will occur in both the hardware and the software during that period of time.

The system should provide online help reflecting the crucial elements of the documentation and especially for those parts of the documentation relating to problem identification and solution. All online help must be provided in both Portuguese, English, and Spanish with easy switchability among them.

TRAINING OF USP STAFF

The proposer must provide a program of training for USP staff. It should include training services at the following levels of USP staff: executives, staff of the library, staff to operate the system, staff to be responsible for technical maintenance of the system. The proposer must provide a program of training USP staff in the process of ongoing training of other staff or provide a program for the proposer to maintain ongoing training.

The proposal should describe the content of each of those two training programs and the means to be used for instruction (including but not limited to training manuals, audio-visual materials, computer-based exercises, simulations). It should propose the schedule for training sessions and the length of time required for any one training session. It should identify the levels of staff and management to be trained at each training session and the appropriate number of persons at each level. It should identify the resources and facilities required to support each training session, including those that USP may be required to provide.

The proposal must identify the language of instruction for both instructors and instructional materials and, if it is not Portuguese, the means by which trainees fluent only in Portuguese will gain the necessary training.

It is desirable that copies of training manuals be included among appendices to the proposal.

The proposal should describe the qualifications that USP staff must have in order to train other staff effectively. It should describe the means they should use for instruction, especially if they are significantly different from those to be used by the proposer.

The system should provide means for a training process that would permit training to take place in a full-scale operating environment but without affecting the data files or operations of the system itself.

HELP SUPPORT

The proposed system must include context sensitive help screens, readily accessible to the user by keying a single key (such as the F1 function key). The help screens should provide sufficient tutorial support for untrained users to be able to operate effectively even though perhaps not at full efficiency.

The proposed system should include problem related help screens which would appear automatically when the system detects a problem either in the operation of the system or in the way in which the user is acting.

Help screens should provide a hypertext capability so that users can quickly jump to screens related to specific, highlighted terms in a current screen.

The help screens available to users of the OPAC other than library staff must be appropriate to their needs. The proposal must identify the kinds of help screens that will be provided for that purpose.

All help screens must be available in Portuguese, English, and Spanish with easy means to switch among those languages.

EDUCATION OF USERS & ASSISTANCE TO USERS

Education of users and assistance to them in their use of the system is regarded as the responsibility of USP staff. However, it would be desirable to have advice from the proposer concerning the best means for providing that education and assistance for the specific features of the proposed system, based on experience of the proposer in prior installations. It would be desirable to have sample of materials appropriate for these purposes provided as an appendix to the proposal.

SECTION 7. MAINTENANCE

The USP is especially concerned with the proposer's ability to minimize downtime, to reduce the mean-time to repair hardware and software problems, and to provide onsite support in those respects. The evaluation process will consider the ways in which the proposal responds to those requirements and will consider evidence regarding the proposer's previous performance at prior installations in doing so.

The USP will contract directly with the proposer for all maintenance services, including both hardware and software to be provided by the proposer as a result of the contract as finally negotiated, and for maintaining the performance levels specified in Section 4 of this RFP. The proposer may provide those services through third parties, but the proposer will be held responsible for the performance of any such third parties and for resolving disputes between the equipment provider(s), the maintenance provider(s), and the proposer. The USP reserves the right to approve or disapprove of any such third parties. The USP reserves the right to contract directly with subcontractors separately, and to pay them separately, if it best serves the USP interests to do so.

STAFF POLICIES OF THE PROPOSER

The proposal should describe any policies that may affect the ability of staff of the proposer to commit time and continuity of effort as may be necessary to correct problems.

HARDWARE MAINTENANCE

The proposal must describe procedures for obtaining support services for the hardware from the proposer's site, including hours of availability (expressed in Sao Paulo time) for on-call services, the means for obtaining those services (telephone, E-Mail, FAX), the nature of services to be provided in this way, and the kinds of problems that it is proposed be dealt with in this way.

The proposal should identify the appropriate inventory of parts or entire units that should be stocked to assure maximum effectiveness in rapid restoration of operation. The proposal should identify the necessary test equipment that is to be included on site for use by USP technical staff or proposer's personnel.

The proposal must identify procedures for obtaining support services for the hardware from the proposer at the USP site of the central processing unit. It should identify the maximum time delay for arrival of field support staff with replacement parts as may have been identified through diagnostic tests. The cost proposal should identify costs for alternative maximum delay times (such as within 4 hours, within 8 hours, within 24 hours, etc.) if that is necessary to represent the proposed maintenance services.

The proposal must identify procedures for obtaining support services from the proposer at sites other than that of the central processing unit and for the replacement of units,

such as terminals, printers, scanners, etc. when that is the most efficient means for solution of problems.

The proposer must describe procedures for preventive maintenance and the division of responsibilities between the proposer and USP in carrying out those procedures. The description should identify the necessary processes for preventive maintenance; the frequency, schedule, and duration for each; and the extent to which each must be done during scheduled downtime or can be done without downtime.

SOFTWARE MAINTENANCE

The proposal must describe what may be required to maintain the software and the means for doing so. It should identify who will be responsible for software maintenance and where they will be located. It should identify the procedures for upgrading the software and for providing new releases and/or new versions, including the means for delivery, for installation, for testing, and for training in use. It should identify the costs associated with upgrading and for new releases and/or new versions, for each module as may be appropriate.

The proposal must describe procedures for obtaining support services for the software from the proposer's site, including hours of availability (expressed in Sao Paulo time) for on-call services, the means for obtaining those services (telephone, E-Mail, FAX), the nature of services to be provided in this way, and the kinds of problems that it is proposed be dealt with in this way.

SECTION 8. BENCHMARK & ACCEPTANCE TESTING

The USP will require that the selected system, the hardware and the software, both as a total and for each module, successfully pass the following acceptance tests:

- Successful loading of USP data files, as specified in Section 5 for the conversion of data files;
- Successful, reliable operation of the hardware;
- Successful functioning of all required software system capabilities, based on the functional requirements listed in Section 4 and the functional specifications listed in Section 9, as they may have been modified in final contractual agreements;
- Handling of transaction workloads and within response time as specified in Table 2 of Section 4, as they may have been modified in final contractual agreements;
- Demonstration of reliable operation of the system, as specified in Section 4 in the sub-section on System Availability & Reliability Requirements, as they may have been modified in final contractual agreements.

Currently, USP visualizes that the process of acceptance testing will consist of the following stages:

- Hardware testing will occur as part of hardware installation, but there will be a formal process of acceptance testing of the hardware after installation is completed.

- Software testing will occur as part of software installation, but there will be a formal process of initial functional acceptance testing of the software after installation is completed.

- The quality of migration of data will occur either in parallel with or following the initial functional acceptance testing.

- Initial operational testing of the total system, hardware and software together, will follow initial acceptance and will be based on operation in the Group B faculty libraries.

- Complete operational testing of the total system, hardware and software together, will occur in all four groups of libraries.

- Final acceptance testing will occur after completion of the complete operational testing or, perhaps, as a result of it.

- During the ensuing five-year period, there will be periodic assessment of the statistics of performance and, if necessary as a result of data implying failure to meet performance objectives, formal testing of performance.

- At the end of the fifth-year there will be a formal performance review

The proposal should present a detailed procedure for acceptance testing of the proposed system in each of these five areas. They may be based on those outlined above or they may be different. The proposed procedures will be considered as part of the assessment of proposals. They will be subject to revision during contract negotiation. As modified and agreed to in the contract, they will be the basis for acceptance of the system.

SECTION 9. SPECIFICATIONS FOR REQUIRED MODULES

To reiterate, in this section of the RFP as in others, the following wording is consistently used:

"must" means that the text reflects a requirement that is intended to be met as stated
"should" means that the text reflects a requirement that is to be met, but the means for doing so potentially
may be different from the way it is stated"
"desirable" means that the text reflects not a requirement but something that would be valuable if provided,
either as part of the delivered system or as an option.The USP will assess the relative importance of
various desirable features as they may differ from proposal to proposal.

In this Section 9 of the RFP, specifications are provided for those modules that must be provided by the proposed system. They are regarded by USP as falling into two categories:

(1) The following ten modules must be completely integrated in the sense that there is complete communication and ready transfer of data among them: Library & System Management, Acquisitions, Serials, Materials Management, Cataloging, OPAC Services, Circulation, Reference Support, ILL Borrowing & Lending and Document Delivery, and Audio-Visual Media & Multi-Media Management.

(2) The following module must be completely integrated with the OPAC Services module, but need not necessarily be fully integrated with other modules, though it is desirable that it be so: Network Access.

LIBRARY AND SYSTEM MANAGEMENT

This module must provide functions necessary for management of the integrated library system. It must provide means for producing reports from system operation as necessary for management of the system. It must provide means for producing reports as necessary for management of the library system as a whole and of individual faculty libraries; the module must therefore provide means for specifying the scope of coverage of any statistics (to be system-wide or to be limited to a specific faculty library). It must provide means for the library to specify the content (including fields of data to be included and calculations based on them), format, and sort sequence of any reports.

The module must interact with and readily exchange data with all other modules, both within the set of essential modules and with any desired optional modules proposed to be included in the system, especially as may be necessary to obtain data on which to base management reports.

It is desirable for the module to provide a variety of alternatives by which statistics are acquired from ongoing operations, such as by terminal, by function, by frequency of use of help screens, by distributions of response times, by distributions of failures, etc.

All reports should be available both online and as output to printers or to files for processing by standard application software (such as word processors, spreadsheets, and file managers). It would be desirable to have the output in specified formats as necessary for direct use by such standard application software.

The module must include means for specifying levels of access to functions and data and for over-riding those specifications, both centrally and at each individual faculty library for those aspects relating to that faculty library.

The module must include means for specifying and changing formats of displays.

SYSTEM HARDWARE & SOFTWARE RECORDS

There must be a record for each item of hardware and/or software in the system. It should have fields that provide means for unique identification of the item, and for documenting its location, its functional role, its relationships to other items, and the history of its performance.

REPORT CONTROL RECORDS

There should be a record for each report provided by the system, both those that are standard and those that are ad hoc. Whenever a new report is created, a record should be established for it, available for search and access by appropriate fields. It should have fields identifying the content, calculations, format, and sequence. It should have fields identifying the use, the frequency of reporting, and the distribution. It should have fields identifying the person responsible for definition, the date of definition, and the reason for definition of it.

ACCESS CONTROL RECORDS

There must be a record for each significant aspect of control of access. It must provide the means for identifying the basis for access control and the means for effecting it. It must provide appropriate links to records related to individual persons where the justifications for levels of access will be found.

TABLES OF DEFINITION RECORDS

There must be a record for each aspect of system operation that involves a definition or prescription by the library of the format of displays, the content of tables of definition, and similar elements. It must provide fields showing the functional role, the current specifications for it, the history of changes in those specifications. Examples of such tables of definition would include currency conversion tables, tables of mnemonics and abbreviations, etc.

ACQUISITIONS

The ACQUISITIONS module must provide an automated means for selection, ordering, receiving, and fund accounting for the acquisition of materials by purchase, gifts, or exchange. The module should provide means for reporting information to support operational and strategic management of these processes. The module should support the maintenance of consistent files both centrally and, as may be deemed necessary for USP operations, locally at faculty libraries.

The module should be able to prepare output of orders, notices, and reports in USP specified formats and/or as necessary to meet the needs in communication to suppliers of materials.

The module should support the many types of orders typical in academic research libraries (e.g., firm orders, standing orders, blanket orders, rush orders, gifts, exchanges, etc.). It should accommodate various conditions of purchase for the normal variety of formats (i.e., books, journals and other serials, microforms, documents, audio-visual media, computer forms such as CD-ROM, maps, photographs, and archival materials).

The module must provide means by which the receipt of faculty production (i.e., publications of faculty) and of student dissertations and theses can be processed as acquisitions.

The module should provide means by which duplicates in the collection can be identified as potential candidates for exchange in acquisition of materials. It would be desirable for the module to provide means to identify USP publications as candidates for exchange in acquisition of materials.

The system must support currency conversion, including ability to re-calculate on a daily basis in the context of rapid fluctuations in exchange rates.

The module must link to and readily exchange data with all other technical services and reference services modules. The bibliographic records and data on the status of orders must be available to the OPAC module for display to users. The records from the OPAC must be available to the acquisition module as means to produce acquisition records with minimal re-keying of data. It would be desirable for there to be means, perhaps through the OPAC, by which the user can place a request for consideration of an item for selection. The module must provide data to the serials module for establishing initial serials records, including data necessary for renewals to be handled by the serials module.

The module should incorporate means for linking to one or more of the international bibliographic utilities (e.g., OCLC or RLIN) and Brazilian counterparts (e.g., CALCO) for obtaining US-MARC data. It would be desirable to have similar means for linking to book jobbers and commercial databases.

The module must provide means for creating an acquisition record as part of the process of selection. In doing so, the module should provide means for checking records in the OPAC, the acquisition records file, and the received/in-process file for potential duplicates.

It is highly desirable for the module to support defaulting in repetitive field during routine operations. It is highly desirable for the module to support consistency criteria for appropriate fields.

The acquisition module must support all accounting functions relating to the receipt of or claiming for materials. It should automatically change the acquisitions record upon receipt and update the data to be displayed by the OPAC. It should provide means for processing partial shipments and continuations.

Quantitatively, the environment within which the module must function is estimated to be as follows:

Number of fund accounts:	1,000
Number of vendors and/or sources:	2,000
Average number of open orders:	15,000
Total number of order transactions per annum:	30,000

The module should support a growth rate of 10% per annum in these figures over the five-year period after installation.

ACQUISITION RECORDS

There must be an acquisition record for each item being selected and/or ordered. The acquisition records should contain fields for access points provided for other records in the OPAC (i.e., fields for author name, title, and date of publication) and be searchable by those fields; in addition, acquisition records should also be searchable and accessible by the following access points:

Purchase order number	Order status	Priority of acquisition
Order date	Order type	Language
Vendor name or code	Fund code	Type of material
Selector's name	Subject code	Accession number
Faculty library	Bibliographic data	Requester name

In addition to those access points, acquisition records should contain the following fields:

Copies ordered	Receiving location	Fields for USP codes
Estimated price	Binding types	
Definitive price	Bank tax	

Acquisition records should include fields for notes and/or instructions.

VENDOR RECORDS

There must be a record for each vendor or other source for materials. The module should provide easy means for addition, deletion, and change of vendor records. A vendor record should contain fields for:

Vendor name	Account representative	Performance data
Multiple addresses	Account number(s)	Encumbered balances
Telephone	Notes	Due balances
FAX		

The record should be accessible by vendor name, representative name, and account number(s). The "Notes" field(s) should include means for management of and access to correspondence with vendors. They should include means for recording information about policies concerning returns, cancellations, claims, order requirements, and discounts.

FUND ACCOUNT RECORDS

The module must include a fund accounting system with fund account numbers that permit tracking by USP defined criteria. It must track amounts budgeted, encumbered, and expended by each fund account. It should automatically post activities to fund accounts as items are ordered, received, or cancelled. It should automatically adjust values based on changes made manually by an authorized operator. It should provide full audit trails for all transactions. It should provide means for USP to specify the format of accounting reports to be either provided online or printed.

There should be a record for each fund account. The module should provide easy means for addition, deletion, and change of fund account records. A fund account record should contain fields for:

Fund account number	Budget
Fund name	Encumbered
Faculty library	Expended
Name of fund manager	Balance

SERIALS

The serials module must provide an efficient automated means of acquiring and controlling materials, such as journals and monographic series, that are issued in successive parts. The serials module must link to and readily exchange data with all other modules and especially with the acquisitions module and its fund accounting.

The serials module must support all functions in ordering, renewing, claiming, receiving, check-in, routing, and binding of serials.

The serials module must interface with all other essential modules. In particular, it must receive data from the acquisitions module as the basis for establishing the serials records, at the time of initial ordering. It must send data to the OPAC for the display of holding information.

The serials module should accommodate 15,000 active current titles and a total of 40,000 series titles.

SERIALS SUBSCRIPTION RECORDS

There must be a record for each serial providing the fields necessary for maintaining and renewing its subscription and supporting claiming operations.

SERIALS HOLDINGS RECORDS

The records in the serials module must be fully US-MARC compatible with respect to the relevant bibliographic data. The holdings data should accommodate the ANSI standard for Serials Holdings Statements (Z39.44 1986). The holdings data should include:

Faculty library	Summary holdings	Circulation status
Location	Detailed holdings	Notes
Call number	Physical format	

The serial records should include check-in, claiming information, and binding information.

MATERIALS MANAGEMENT

The materials management module must provide support to all operations involving the management of the physical items in the collection, including receiving and processing, inventory control, binding, and conservation and preservation. It must deal with both separate items and serials.

The materials management module must interface and easily exchange data with all other essential modules. In particular, it must interface with the OPAC module for automatic change in the status of a item, when received or when determined to be missing, as displayed in the OPAC. It must interface with the circulation module for the management of items that are missing, mis-shelved, or in need of binding, conservation, or preservation.

RECEIVING & PROCESSING

The materials management module must provide means for controlling the process of receiving materials, including access to the bibliographic, holdings, and acquisition records related to an item. It must support inspection of the received items for condition and conformance with the delivery as expected, and update of records as necessary to

reflect receipt including partial receipt. It must provide means for entry of invoice data associated with the receipt into the appropriate acquisition records. It must provide means for identifying the person and/or terminal by which data related to receiving is entered and the time and date of doing so.

The materials management module must be able to deal with items for which there may not be existing relevant records (such as a gift or exchange).

The materials management module must support the physical processing of received materials, including assigning and attaching of barcodes (or alternative counterparts for item identification) and specified other processing.

INVENTORY CONTROL

The materials management module must provide means for taking inventory of library materials, and the hardware should include the necessary means for obtaining the identification data (such as portable terminals or hand-held scanners storing data for subsequent input).

The materials management module should record on the appropriate item record the date of most recent inventory.

The materials management module must provide means for determining mis-shelved items and/or missing items and listing them for subsequent processing; the sequence of the listing should be specifiable by the library. In doing so, the module must consider the status of items with respect to being "in process", in circulation, or in other status that does not qualify as missing. The appropriate item record for any missing item must be updated to reflect its status.

BINDING

The materials management module must support binding. It must provide for identifying materials ready to be considered for binding. It must provide means for specifying details of binding (such as size, color, text of labeling, etc.).

CONSERVATION & PRESERVATION

The materials management module must provide means for identifying items which need conservation and preservation work. It must provide means for monitoring the status of items, from initial identification of need, through processes of minor repair and binding (generally identified as "level 1 or 2" conservation), through processes of major conservation work (generally identified as "level 3" conservation).

CATALOGING

The cataloging module must provide means to create and maintain bibliographic records, related item records, and necessary authority files. The module must permit online

creation, addition, editing, deletion, and change of individual bibliographic, item, and authority records.

The module must link to and readily exchange data with all other technical services and reference services modules. The bibliographic records must be available to the OPAC module for display to users. Records already in the OPAC should be available for use as the basis for creating new records with minimal re-keying of data.

The module should incorporate means for linking to one or more of the international bibliographic utilities (i.e., OCLC or RLIN) and to Brazilian counterparts (i.e., CALCO) for obtaining US-MARC data.

The module should include means for accommodating multiple items related to the same bibliographic record. It should provide means to identify the faculty library at which an item is located. There should be only one bibliographic record for each title in the database: multiple item records should be linked to that bibliographic record.

It is desirable for the module to be able to display, at the user's request, records related to one current being processed on the basis of common values in identified fields. The objective is to maintain consistency among related records.

The module should provide validity and consistency checks at the level of field tag, indicator tag, and subfield tag in both bibliographic and authority records. The module should provide means for detecting duplicate records and records with potential errors. It would be desirable for the module to provide spelling checkers in Portuguese, English, and Spanish, switchable at the option of the user.

The module should permit, with appropriate controls, over-riding mandatory field requirements so that partial records can be created under authorization.

The module must provide means by which authority files and supplementary tables can be viewed, for example in a "window", at the time of entry of data into a record for the purpose of validation and automatic entry of a selected value.

The module should provide means for maintaining an "audit trail" of changes made in bibliographic records and authority files.

BIBLIOGRAPHIC RECORDS

The bibliographic records must be fully compatible with US-MARC, including all field tags, indicators, and sub-field codes.

AUTHORITY RECORDS

The module should provide online interactive authority control, including cross references that will support a single authoritative form of subject headings, thesauri, established key words, and supplementary tables (for countries and languages, for

example). The module must provide authority control for author names and publisher names. The authority records must be fully compatible with US-MARC authority records in format.

The module should provide authorities for a number of different classification schedules including, but not limited to LC, Dewey, and UDC. In particular, the module must be able to handle non-standard classifications now in use in several of the faculty libraries.

CATALOGING TRANSACTION RECORDS

There should be a record for each cataloging transaction resulting in a change to either a bibliographic record or an authority record. It should identify the date and time of the transaction, the identification of the record that was changed, the identification of the terminal at which the change was made and of the person making the change, and a note providing details about the nature of the change.

OPAC SERVICES

There must be a module (the OPAC) to provide means for users easily to have access to and use of the bibliographic records and those portions of the acquisitions records relevant to their needs. The OPAC must link to and readily exchange data with cataloging (including authority records), acquisition, and serials.

The OPAC must link to and exchange data with the Circulation Module so that the status of an entry being viewed can be displayed, and so that a listing of materials already charged out to the user can be reviewed.

The OPAC must link to and readily exchange data with the Reference Services and ILL modules so that the user can initiate a request for an ILL borrowing, for staff review.

The OPAC module must be available from both public terminals and staff terminals. It must be accessible through dial-up from sites not directly connected, such as the residences of academic and administrative staff and students, other institutions and external users. It must be available for access through the Internet.

The OPAC module should conform to ANSI/NISO Z39.50-1994 standards.

The OPAC module must provide means by which the portion of the catalog viewed at a given terminal can, under the user's control, easily be switched from the full catalog to that portion of it identified with the user's faculty library.

The OPAC module should allow user searching by natural language or easily identifiable mnemonics or abbreviations. The screen should be well designed, visually uncluttered, and provide suitable messages for help and/or correction of user errors.

The OPAC module must provide means for single term (both single word and multiple word terms) search of a specified set of bibliographic fields (including but not limited to

author name words, title words, subject words, call numbers, and dates of publication). It should have means for specifying an exact match of a field. It must provide means for developing boolean combinations of terms from single fields or combinations of fields, including logical AND, OR, and NOT. It should provide means for use of comparators (less than, greater than, equal to) with numerical terms. It should allow both case sensitive and case unsensitive search; same for diacritical marks. It would be desirable to have means for use of adjacency, proximity, or sequence of terms in the formulation of a multiple term search.

The OPAC module should provide means for right truncation of any single word in any search. It would be desirable to provide means for left truncation as well. It would be desirable to have truncation for more than just one word in a query.

Display formats of the results of a search should be definable by USP and customizable on-site. Means should be available for showing the total number of hits, the number of hits for each term in the search, brief one-line entries for each hit with multiple entries per screen, full bibliographic records in full screens (or as necessary multiple screens). The OPAC module should highlight the search terms within each entry on which match with the search query was found.

The OPAC module should provide means for the user to specify the sort sequence of multi-entry displays, with sort fields including but not limited to author name and date of publication.

The OPAC must provide means for display of a full-screen entry of the full content of an entry selectively in user display format and US-MARC format, with tags. The OPAC should provide means to restrict the display of full US-MARC entries to specific categories of users.

The OPAC should provide means for selecting an entry in a multi-entry display for full-screen display of the full content of that entry.

The OPAC module should provide capability for "browsing" in the bibliographic file on selected fields (including but not limited to the fields for author name, subject, call number) in which entries in the file surrounding a chosen entry for its value in the selected field are displayed, one line per surrounding entry.

The OPAC should provide capability for "browsing" in authority files (including name authorities, subject authorities, and classification schedules and authorities).

The OPAC should provide means for the user to specify those retrieved records that are to be downloaded, either to a printer, to an E-Mail address, or to a diskette, and the OPAC should provide means for the user then to request that the download be made. The OPAC should provide means for the user to specify the format of downloaded records (i.e., brief one-line entries, user oriented entries, or staff oriented entries such as full US-MARC) and the sort sequence for the output. It is desirable that some popular formats for bibliography processing like BIBTeX and refer be supported for output.

The library must have the ability to set limits on the number of records that can be downloaded, whether to a printer, to an E-Mail address, or to a diskette.

The OPAC should make it easy to modify a search query without the need to re-key portions of it that are not changed. The OPAC module must provide means for narrowing a search query by date of publication and by faculty library. It would be desirable to be able to narrow any search by the type of material.

It is desirable for the OPAC to provide means to store user queries and results for later retrieval, re-execution, printing, or downloading, and to keep the file for such storage private to the individual user.

CIRCULATION

The circulation module must provide all functions involved in circulation of materials, both to patrons and to activities within the library, such as ILL, photocopying, and materials management.

The module should alert the terminal operator of any potential problems, such as a non-registered borrower, a borrower with outstanding fines or fees, a borrower who has for any reason been blocked, the attempt to borrow materials that are restricted in access, etc.

The module must interface with all other essential modules and readily transfer data to and from them. In particular it must communicate with the OPAC module for the display of the current status of materials, if requested by the user. It must communicate with the OPAC module for the display, with suitable access protection, of the list of materials charged out to the user if requested.

The module must communicate with the library and system management module for the purpose of providing statistics and reports on operation of the module. It would be desirable for the statistics to include data on frequency of use of individual items and specified groups of items in the collections.

The module must provide means for identifying the physical condition of materials when returned if there appears to be need for conservation treatment, and for automatically communicating data about such materials to the materials management module. The module must provide means for flagging materials as "missing" and for automatically communicating data about such materials to the materials management module.

The module must provide for charge-out, renewal, and discharge of materials. It is assumed that the necessary data for a transaction will be derived from the scanning of barcodes, or similar machine-readable forms, for both the material and the borrower.

The module must accommodate different loan periods for charge-out as determined either by the date of the transaction, the category of patron, the category of material, or a combination of those criteria. It must provide means for automatically calculating the

resulting due-dates, with means for excluding holidays or other days when a faculty library may be closed; the calendar underlying such calculation should easily be modifiable by library staff.

The module should provide means for permitting circulation, with suitable authorization, of materials for which there may not yet be a bibliographic record, for which there is not yet an assigned barcode label, or for which there is any other missing data.

The module should provide means for interrogating and obtaining identification data for the borrower when the patron does not have at hand the usual means for identification (such as a borrower card with patron barcode). It should provide means for ready creation of a borrower record, with suitable authorization, in the event that one does not exist so as to permit full check-out at a first visit.

The module should accommodate charge-out of multiple items to a single borrower following a single entry of borrower identification data. It should alert staff as necessary to prevent items from a subsequent patron being charged to an open charge process for the prior patron.

The module must provide for holds and recalls, and any renewal request must be subject to control on the basis of them. It must provide means for informing the requester of a hold or recall of the availability of returned materials, of If a borrower record is deleted, it must cancel all outstanding holds and recalls related to that borrower.

If a renewal is requested for an overdue item, the module should provide means for controlling the renewal.

The module must have means for blocking the circulation of materials (i.e., preventing charge-out or renewal). It must provide means for over-riding such restrictions with proper authorization.

The module must provide for determining overdue status of item during any transaction (such as renewal or discharge) and initiating appropriate action. It must provide for producing overdue notices and related accounting for fines and other fees. If a borrower record is deleted, all related accounting records should be updated.

It would be desirable for the hardware system to provide means for patrons to charge-out materials themselves and for the module to support such charge-out with complete control of the transaction with respect to limitations, holds, blocks, etc.

The module should provide means for patrons to renew charge-outs through the OPAC or, if provided by the system, E-Mail, with complete control of the transaction with respect to limitations, holds, blocks, etc.

The module must provide all functions related to reserve book operations, including communicating with academic staff concerning reserve operation needs, identifying

materials to be placed on reserve, circulating materials from reserve book operations, and handling all related accounting.

The module must provide means for online change, with due authorization, of any and all parameters affecting operation of the module.

The module and the related hardware must provide means for back-up operation during any times when the system is, for any reason, not accessible and for subsequent update of all records as necessary to reflect transactions occurring during such periods of inaccessibility.

TRANSACTION RECORD

There must be a record for each circulation transaction, both for charge-out to patrons and for charge-out to library activities (such as to ILL, to reserve books, to photocopying). It should contain fields identifying the material (by barcode), the patron (by barcode), the date and time of transaction, the terminal of transaction, the chargeout period. It must be searchable by all fields and, through links to the bibliographic database, by bibliographic data elements (such as author, title words, call number).

It would be desirable for there to be a notes field in which textual data can be recorded about the transaction.

PATRON RECORD

There must be a record for each patron and library internal activity to which materials may be charged-out. It should contain fields for the name and identification code of the patron, address(es) and telephone number(s), category of patron (academic staff, student, administrative staff, library internal, etc.), the date of creation of the record, the date of last transaction by patron, the date of expiration of patron status, the listing of materials that are charged-out to the patron. It must be searchable by patron name and identification code, by category of patron, by dates, and through links to the bibliographic database by bibliographic data elements.

The module must provide means by which the patron record file can be updated from other files at the USP (such as the files for academic and administrative staff and students as maintained by USP administration).

It would be desirable for there to be a notes field in which textual data can be recorded about the patron.

RESERVE BOOK RECORD

There must be a record for each item of materials charged-out to the reserve book operation. It should contain fields identifying the item, either through links to the bibliographic database or directly (as may be necessary for materials provided by the instructor for a course), and conditions of use in the reserve book operation (such as time

period of use). It should contain a field for frequency of use in the current charge-out to reserve book operation. As may be necessary to support reserve book charge-out functions, it may contain fields related to charge-out.

RESERVE BOOK CLASS RECORD

There must be a record for each class for which reserve book services are required. It should contain fields identifying the class, the instructor(s), the frequency of offering, the sessions or terms of offering, the current days and times of instruction, the listing of books or other materials to be placed on reserve.

ACCOUNTING RECORD

There should be a record for accounting data related to fines and other fees. It should contain fields identifying the patron, the date and amount of fines or other fees, codes or notes for identifying the basis for fines or other fees.

REFERENCE SUPPORT

The reference support module must provide tools to support reference librarians in use of the system in services to patrons. It must interface with all other modules, both essential and desired optional that may be included in the proposal, and it must readily exchange data with each of them. Of special importance s the interface with the OPAC for access to bibliographic data, to the acquisitions module for access to the status of current acquisitions, to the network module for access to CD-ROMs and databases external to the library, to the ILL module for initiating ILL requests and for reviewing the status of current requests.

ILL: BORROWING & LENDING OR DOCUMENT DELIVERY

The ILL module must support functions involved both in the sending of materials (borrowing and lending) and in the sending of photocopies (document delivery).

The ILL module must include an online ILL management system to support the transmission, storage, monitoring, and display of ILL requests. The ILL module must interface with the circulation module and the reference module. It should provide reports as necessary to support operational and strategic management of the ILL functions.

The ILL module should provide access to records of ILL transactions by patron name or other identification for access to the patron file, by item identifier, by identification of the other library involved in the ILL transaction, by data in bibliographic fields, by ILL transaction record identifier, and by any of the relevant dates. The module should provide means for online editing of active borrowing and lending requests.

It would be desirable for the ILL module to interface with a variety of external electronic mail systems for the exchange of ILL messages.

The ILL module should provide means for copyright accounting as may be necessary to conform with Brazilian law or international copyright agreements.

TRANSACTION RECORDS

There must be a record for each borrowing and lending transaction. For each, it must include a record number field providing a unique identifier. It should include fields for bibliographic identification of the material.

For borrowing transactions, there should be a field for identification of the requester, fields for dates and times (including that of the request, of notice to the requester, of delivery to requester, of return from requester, of return to lending institution).

For lending transactions, it should include fields for dates and times (including that for the request from the borrowing institution, for the mailing to the borrowing institution, for the return). It should have a field for the means for delivery.

ACCOUNTING RECORDS

There must be a record for each institution from which materials are borrowed or to which they are lent. It must include data for both statistical purposes and, potentially, financial accounting purposes.

There must be capability for establishing requester records as may be needed for accounting and billing purposes.

AUDIO-VISUAL MEDIA & MULTI-MEDIA MANAGEMENT

The AV module must provide means to manage collections of audio-visual and multi-media materials. The AV module must provide means to manage equipment and rooms (such as meeting rooms or preview rooms) or other facilities necessary for their use. The AV module must include a capability for booking of both materials and equipment, including advance reservation and control of delivery. The system must provide graphic displays that will serve for easy visual review of bookings (of materials, equipment, and rooms or facilities), identification of available time slots, and areas of potential conflict.

The AV module must interface with all other essential modules and readily exchange data with them. In particular, it must interface with the OPAC for access to relevant bibliographic data; with the circulation module for charging and discharging of materials. To the maximum extent possible, the necessary data for operation of the module should not duplicate data already available in other modules (such as bibliographic data from the OPAC module and patron data from the circulation module).

AV TITLE RECORD

There must be a record for each audio-visual or multi-media title. The relevant bibliographic part of the record should be managed within the bibliographic database, available within the OPAC module, and not duplicated. It must contain fields for data necessary to control the process of booking and delivery of the materials. It should provide fields for description of the physical condition of the material and related dates (such as date of last cleaning and of last inspection).

AV EQUIPMENT RECORD

There must be a record for each item of equipment assigned to AV services (multi-media computers, overhead projectors, computer to overhead convertors, film projectors, VHS recorders and players, microform viewers, etc.). There must be fields to identify the type of equipment, the specific characteristics of the unit, the current condition of the unit, the booking status of the unit.

AV ROOMS & FACILITIES

There must be a record for each room or facility, both those assigned to AV services and those not so assigned but configured to provide AV services. There must be fields to identify the AV materials and equipment that the room or facility can accommodate, including a field for notes to identify any special considerations. There must be field to identify the booking status of the room or facility.

NETWORK ACCESS

The Network Access module must provide means for access to a variety of networks, both within the USP library system, within USP more generally, and in the external environment. The module must be tightly integrated with the OPAC module, so that the main menu of the OPAC module will provide means for direct access to any of the networks.

It is desirable to have the ability to move seamlessly among networks, especially in the processing of search requests across databases accessed through them. In particular, it would be desirable to apply a request, once formulated on one database, to a succession of other databases without the necessity for re-keying or for significant change.

CD-ROM ACCESS

The CD-ROM module is to provide a server for access to CD-ROM databases by multiple users. Access to the server should be available from the OPAC main menu.

CAMPUS DATABASES

It must be easy to add databases from the USP computer system that are identified as available for network access through the system.

INTERNET

Access to the Internet should be directly available from the network module by call from the OPAC main menu.

SECTION 10. SPECIFICATIONS FOR DESIRED OPTIONAL MODULES

The modules presented in this Section 10 of the RFP are desired but need not be included in the contract for the integrated system or, if they are included in the contract, need not be integrated with other modules, though it would be desirable that they be so: E-Mail, Publishing, Selective Dissemination of Information, Tables of Contents Access, others.

However, even though the modules are optional, the requirements for them are consistently presented in the same phrasing used in other sections of this RFP:

"must" means that the text reflects a requirement that is intended to be met as stated
"should" means that the text reflects a requirement that is to be met, but the means for doing so potentially
may be different from the way it is stated"
"desirable" means that the text reflects not a requirement but something that would be valuable if provided,
either as part of the delivered system or as an option. The USP will assess the relative importance of
various desirable features as they may differ from proposal to proposal.

The assessment of the proposal by USP will include consideration of them, both for their functionalities and for the extent to which they are deemed by USP to be important.

E-MAIL

It would be desirable to have a module providing means for library staff to communicate by E-Mail through the system, both with each other and with the users. If such a module is proposed, it should provide means for any librarian of user to generate a message while using any other module in the system, without the need to exit from that context module to do so. Thus, for example, a user of the OPAC should be able, by simply pushing a function key for example, to create an E-Mail message and to include in it data selected from the screen currently operational in the context module; an acquisitions librarian should be able to send an E-Mail message to user who had previously requested that a book be acquired informing the user of the status; staff in receiving should be able to send a message to a bibliographer identifying a problem in the materials received.

The module should provide means by which the USP library could maintain a bulletin board for university information for distribution and for access

Other functions and the necessary associated records should be those typically required in an effective E-Mail system.

PUBLISHING

The USP faculty libraries are engaged in the process of publishing 60 scholarly journals and 240 library generated newsnotes, bulletins, manuals, guides, and other kinds of materials. The journals are prestigious, with full refereeing, national and international in ranges of authors who publish in them and of subscribers to them. On the average, there are over 500 subscribers to each of them. The library generated materials are used to communicate with users, with an average of 100 persons to which each is distributed. These publishing activities are estimated to involve on the order of 25% of the staff of the faculty libraries. It would therefore be desirable to have a module of the proposed system that would support this activity.

If such a module is proposed, it must provide means for management of the entire process of publication, including communication with authors, identifying and communicating with referees, performing editorial work on manuscripts, arranging for graphics, delivering materials to printers, managing subscriptions and subscription fulfillment, and control of inventories.

Other functions and the necessary associated records should be those typically required in an effective publishing support system.

ARTICLE RECORD

There must be a record for each article submitted for publication. It must include fields for author, institutional affiliation, address, telephone number, title. It must include fields to support editorial processing, with names of referees, status of acceptance or rejection, identification of graphics, status of processing, journal and issue planned for publication.

JOURNAL RECORD

There must be a record for each journal. It must include fields similar to those involved in a typical library serials record. It must include fields providing data about the inventory of past published issues (number of copies held of each issue number, location). It must provide data about the current status of publication of the current issues, including references to the article record for those articles to be included in a current issue.

SUBSCRIPTION RECORD

There should be a record for each subscriber to each journal. There must be field for subscriber name and address, for the name of the journal, to the status of billing or claiming, for notes.

SELECTIVE DISSEMINATION OF INFORMATION

The USP faculty libraries provide a selective dissemination service for their users. It would therefore be desirable to have a module of the proposed system that would support the operation of this service.

If such a module is proposed, it must provide means for management of the SDI process, including the storage of profiles, the update, change, or deletion of profiles, the association of profiles with specific individuals or groups, the distribution of the results of matching of profiles against databases.

TABLES OF CONTENTS ACCESS

Several of the faculty libraries of USP are planning to provide a "Tables of Contents" service covering a total of over 3000 Brazilian periodical titles, for each issue during the year, and 15.000 monographs per year. The data are to be derived by scanning the table of contents pages and converting by use of OCR. It would therefore be desirable to have a module of the proposed system that would support this service.

If such a module is proposed, it must provide means for management of the process of scanning, creating records, storing them, and distributing them. The module should provide means for identifying the periodicals and monographs to be scanned and for scheduling the process of scanning. It should manage the resulting files. It should make them available to the OPAC for general distribution and access. If the E-Mail module is proposed to be provided, the tables of contents module must provide means for distribution to specific individuals or groups through it. It must provide means for printing of the tables of contents and for distribution of the printed outputs to those who are to receive them.

SOURCE RECORD

The module should provide a record for each source (periodical or monograph) to be included. It should have fields identifying the source, the periodicity, and the set of persons or groups to which the table of contents is to be delivered.

PATRON RECORD

The module should provide a record for each person or group served by the tables of contents serve, identifying the person or group and enumerating the set of tables of contents to be provided, the form in which they are to be provided, and the address to which each is to be sent.

OTHERS

The USP encourages the proposer to identify other kinds of modules that could be of interest and worth considering in the USP assessment of the proposal. They might represent capabilities currently included in the proposer's existing software system but

which are not adequately specified by the descriptions in Section 9 or 10. They might reflect capabilities planned for development and future implementation.

For each such additional module to be considered, the proposal should clearly describe the functions it performs and the records associated with it, much as is illustrated in the modules that are included in Sections 9 and 10. It should explicitly describe the status of development and implementation of each, using the terminology specified in Section 4.

SECTION 11. SPECIFICATIONS FOR HARDWARE

In its own planning for implementation of the system, the USP library system has reviewed its current holdings of computer equipment, recognizing that the primary means for computer processing has been provided by the general campus computing system and not by equipment dedicated to library operations. It has visualized for the future system what more may be required in terms of types of servers dedicated to library operations, the size of database storage, and the number of terminals that will be required. It has estimated the distribution of that equipment between central operations and the several faculty libraries that will be necessary to meet the respective workloads for technical services and user services, both centrally and at each faculty library.

This section of the RFP provides summaries for those two sets of data. The purpose in doing so is not to predetermine the proposer's assessment of hardware requirements but to provide a quantitative basis for that assessment that reflects the distribution of workloads.

CURRENT EQUIPMENT

The following table list the equipment currently held by the USP library system, summarized by group of faculty libraries:

TABLE 5. EQUIPMENT CURRENTLY HELD BY THE USP LIBRARY SYSTEM

GROUP	PC-XT	PC-AT	TERMINAL	TEXT TERMINAL *	PRINTERS	CD-ROM
A	29	49	8	49	85	11
B	10	43	8	24	38	10
C	19	53	4	27	58	10
D	15	17	8	13	29	10
TOTAL	73	152	28	113	210	41

* Unisys proprietary protocol terminals are not intended to be kept in the new system.

CENTRAL & FACULTY LIBRARY SERVERS

The following table lists the servers visualized by the USP as necessary to serve the workloads for the central server and for each group of faculty libraries:

TABLE 6. LOCAL SERVERS (CPU/RISC) VISUALIZED AS NEEDED

GROUP	TPS	SPECIFICATION	RAM	QUANTITY
Central	495	specrate int 92=5300; fp 92=7000	256 MB	1
A	200	specrate int 92=6000; fp 92=6700	128 MB	8
B	200	specrate int 92=3900; fp 92=4600	96 MB	9
C	150	specrate int 92=1700; fp 92=1900	64 MB	11
D	100	specrate int 92=1600; fp 92=1800	64 MB	10

DATABASE STORAGE

The following table lists the database storage capacities estimated as necessary to meet the needs, both centrally and at each faculty library:

TABLE 7. DATABASE STORAGE REQUIREMENTS

GROUP	DATA STORAGE CAPACITY	QUANTITY
Central	15 gigabytes, expandable to 100 G-bytes	1
A	5 gigabytes, expandable to 50 G-bytes	8
B	4 gigabytes, expandable to 50 G-bytes	9
C	3 gigabytes, expandable to 50 G-bytes	11
D	2 gigabytes, expandable to 50 G-bytes	10

TERMINALS

The following table summarizes the number of terminals that are visualized as required for user access to the OPAC, for cataloging, for acquisitions, for circulation, for reference, for ILL functions, for publishing functions, summarized for each group of faculty libraries:

TABLE 8. TERMINALS VISUALIZED AS REQUIRED FOR EACH TYPE OF FUNCTION

GROUP	OPAC	Cat	Acq	Circ	Ref	ILL	Pub	Total
A	60	14	7	24	28	7	7	147
B	39	18	9	9	18	9	9	111
C	54	11	11		22	11	11	120
D	18	11		1	11	10		51
Total	171	54	27	34	79	37	27	429

APPENDICES

CAMPI OF UNIVERSITY OF SÃO PAULO, BRAZIL

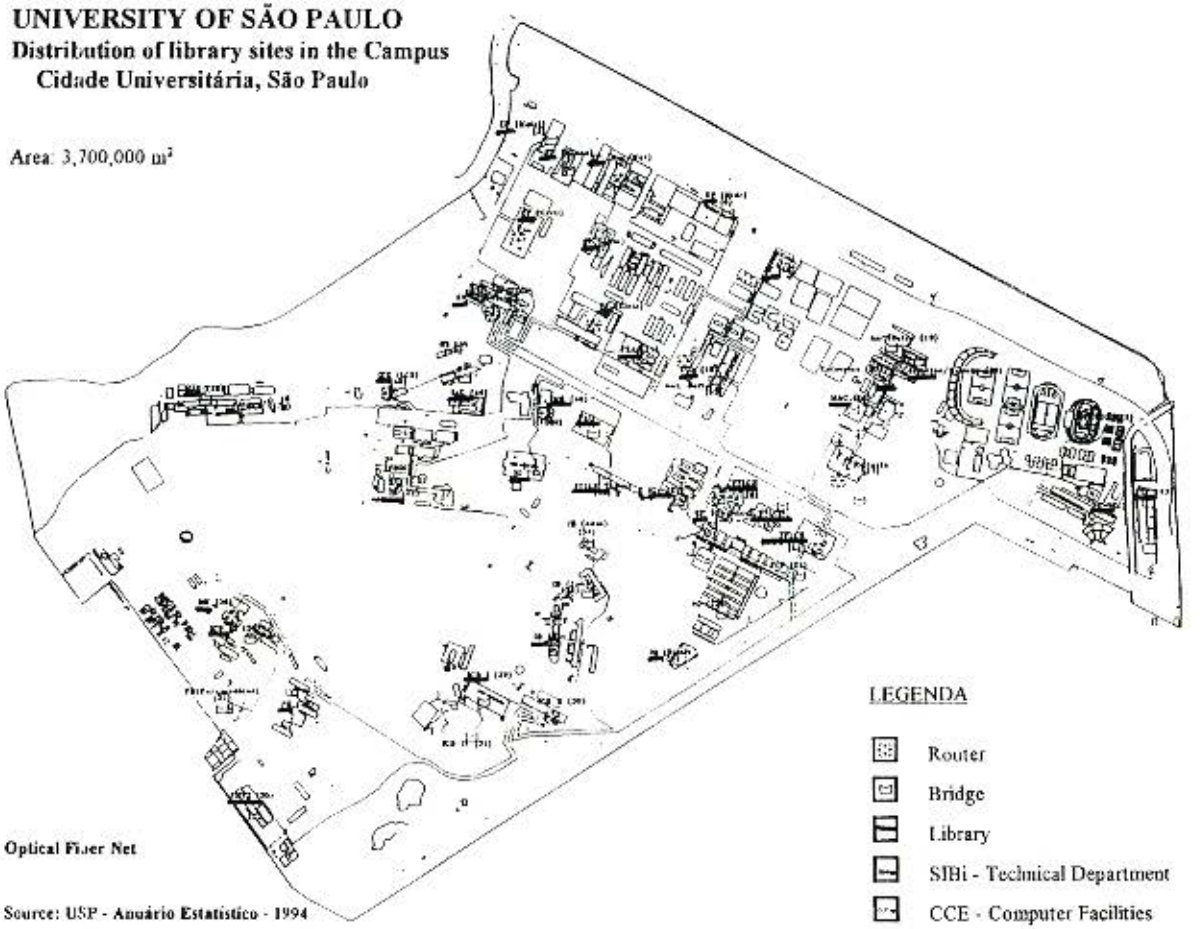
Distribution in the State of São Paulo [1, 2, 3]

1 - USP total area: 74,000,000 m²
2 - USP buildings total area: 1,250,000 m²
3 - USP library buildings area: 50,000 m²
4 - The campus located in São Paulo city is distributed in various sites: the major part at Cidade Universitaria (3,700,000 m²) and external areas (1,500,000 m²)

☆ Research Center on Marine Biology at São Sebastião contains a library from the Integrated Library System

UNIVERSITY OF SÃO PAULO
Distribution of library sites in the Campus
Cidade Universitária, São Paulo

Area: 3,700,000 m²



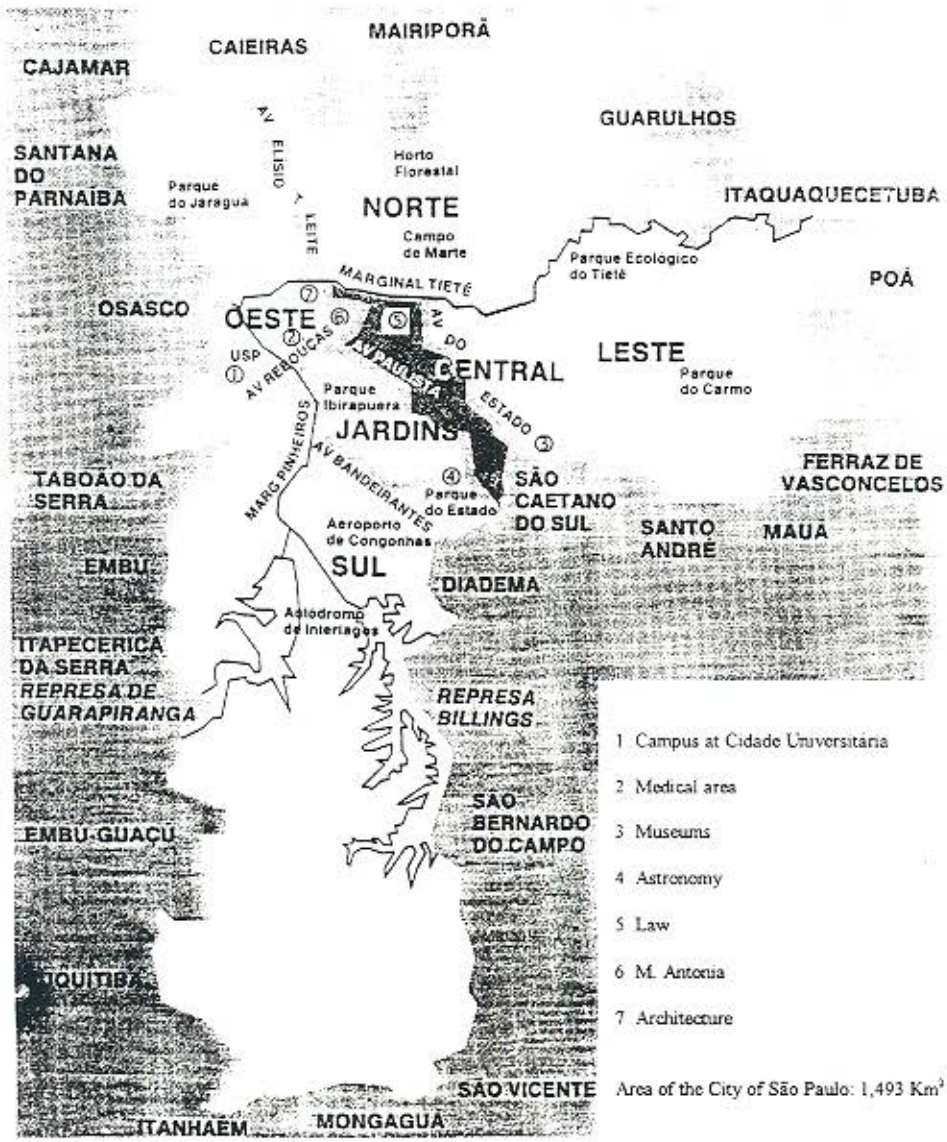
Optical Fiber Net

Source: USP - Anuário Estatístico - 1994

LEGENDA

- Router
- Bridge
- Library
- SIBi - Technical Department
- CCE - Computer Facilities

DISTRIBUTION OF USP LIBRARIES THROUGHOUT THE CITY OF SÃO PAULO



APPENDIX 1. THE UNIVERSITY OF SAO PAULO (Library Sites)

USP INTEGRATED LIBRARY SYSTEM SITES

SIGLA	
BC-RP	Biblioteca Central - Campus de Ribeirão Preto
CBM	Centro de Biologia Marinha (São Sebastião)
CENA-BS	Centro de Energia Nuclear na Agricultura - Biblioteca do Campus de Piracicaba
CQ	Conjunto das Químicas / Instituto de Química e Faculdade de Ciências Farmacêuticas
ECA	Escola de Comunicações e Artes
EE	Escola de Enfermagem
EEF	Escola de Educação Física
EESC	Escola de Engenharia de São Carlos
EPBC	Escola Politécnica - Biblioteca Central
EPEC	Escola Politécnica - Biblioteca de Engenharia Civil
EPEL	Escola Politécnica - Biblioteca de Engenharia de Eletricidade
EPMC	Escola Politécnica - Biblioteca de Engenharia Mecânica
EPMI	Escola Politécnica - Biblioteca de Engenharia de Minas
EPMT	Escola Politécnica - Biblioteca de Engenharia de Metalurgia
EPNV	Escola Politécnica - Biblioteca de Engenharia Naval
EPQG	Escola Politécnica - Biblioteca de Engenharia Química
EPRO	Escola Politécnica - Biblioteca de Engenharia de Produção
ESALQ-BC	Escola Superior de Agricultura "Luiz de Queiroz" - Biblioteca do Campus de Piracicaba
ESALQ-BSF	Escola Superior de Agricultura "Luiz de Queiroz" - Biblioteca do Campus de Piracicaba
ESALQ-BSO	Escola Superior de Agricultura "Luiz de Queiroz" - Biblioteca do Campus de Piracicaba
ESALQ-BST	Escola Superior de Agricultura "Luiz de Queiroz" - Biblioteca do Campus de Piracicaba
FAU	Faculdade de Arquitetura e Urbanismo
FAU-PGR	Faculdade de Arquitetura e Urbanismo - Biblioteca Rachel de Pós-Graduação
FD	Faculdade de Direito (Total of 11 sites)
FE	Faculdade de Educação
FEA	Faculdade de Economia, Administração e Contabilidade
FFLCH-FIL	Faculdade de Filosofia, Letras e Ciências Humanas - Seção de Filosofia e Ciências Sociais
FFLCH-GEO	Faculdade de Filosofia, Letras e Ciências Humanas - Seção de Geografia e História
FFLCH-HIS	Faculdade de Filosofia, Letras e Ciências Humanas - Seção de Geografia e História
FFLCH-LET	Faculdade de Filosofia, Letras e Ciências Humanas - Seção de Letras
FM	Faculdade de Medicina - Biblioteca Central
FM-CMN	Faculdade de Medicina - Centro de Medicina Nuclear
FM-IMT	Faculdade de Medicina - Instituto de Medicina Tropical
FM-IOF	Faculdade de Medicina - Instituto Oscar Freire - Departamento de Medicina Legal, Ética Médica, Medicina Social do Trabalho
FM-RAD	Faculdade de Medicina - Departamento de Radiologia
FMVZ	Faculdade de Medicina Veterinária e Zootecnia
FO	Faculdade de Odontologia
FOB	Faculdade de Odontologia de Bauru
FSP	Faculdade de Saúde Pública
FZEA	Faculdade de Zootecnia e Engenharia de Alimentos (Pirassununga)
HU	Hospital Universitário
IAG	Instituto Astronômico e Geofísico
IAG	Instituto Astronômico e Geofísico - Site at Cidade Universitária
IB	Instituto de Biociências
ICB	Instituto de Ciências Biomédicas
ICMSC	Instituto de Ciências Matemáticas de São Carlos
IEB	Instituto de Estudos Brasileiros
IEE	Instituto de Eletrotécnica e Energia
IF	Instituto de Física
IFSC-F	Instituto de Física de São Carlos
IGC	Instituto de Geociências
IME	Instituto de Matemática e Estatística
IO	Instituto Oceanográfico
IP	Instituto de Psicologia
IQSC	Instituto de Química de São Carlos
MAC	Museu de Arte Contemporânea
MAE	Museu de Arqueologia e Etnologia
MP	Museu Paulista
MP-IEP	Museu Paulista - Museu Republicano de Itu
MZ	Museu de Zoologia
SIBI/DT	Sistema Integrado de Bibliotecas (Departamento Técnico)
STUDENT'S HOME	Cidade Universitária
CULTURAL CENTER	M. Antonia Site

UNIVERSIDADE DE SÃO PAULO
SISTEMA INTEGRADO DE BIBLIOTECAS
Av. Prof. Luciano Gualberto, Travessa J, 374/1º andar
Prédio da Antiga Reitoria - Cidade Universitária - São Paulo, SP
05508-900 - Tel.: 0055 (011) 818-4193 / 818-4197 - Fax: 0055 (011) 815-2142 - dsibi@org.usp.br

SIBi USP

APPENDIX 2. REQUIREMENTS FOR EXTERNAL INTERFACES

A. Interface to the University's administratic computer environment. It should be able to share data about the following:

1) Students. Faculty and Administrative staff registers (personnel and enrollments controls).

2) Administrative sections (Departments, Faculties and related Sectors/Branches).

3) Faculty production
. information to build Faculty curricula and related documents
. obtention of patterns in the storage and retrieval of data

4) Integration between theses control at the Post-Graduate System and Theses references stored at DEDALUS.

B. Other programs. Specific among the programs that require external interfaces are the following:

(1) The Union Catalog of Books from the State of Sao Paulo. There are 100 libraries, including the library system of the USP, participating in this program. Management of it has been the responsibility of USP/SIBi/DT since 1954. It contain a total ot 1.5 million records.

(2) The Union Catalog of Books, Serials, and Theses of the Three State Universities of Sao Paulo (UNIBIBLI). The three State University (of which the USP is one) have produced a CD-ROM, of which three editions have been published. The database for production of the CD-ROM contain records as follows:

	USP Contribution	Total Contribution
Book Titles	585,000	657,000
Periodical Titles	33,000	54,000
Theses	31,000	44,000

(3) The Brazilian National Union Catalog of Periodicals. This is a publication in CD-ROM format containing a total of over 350,000 entries, of which 57,000 (or 16%) are from the USP collections.

(4) The Brazilian National Program for Document Delivery Services.= (COMUT). The USP supplies photocopy materials for about 30% of the requests handled by this system (a total of 285,000 copies annually)

(5) The Services Network for Access to National and International Specialized Databases (ANTARES). There are eight major distributor centers, of which two providing access to 13 service branches are at the USP.

(6) National Union Catalog of Theses. This program is currently in process. It will include a total of 60,000 theses, of which the USP participation is 30,000.

(7) Latin American and Caribbean Center of the Health Sciences (BIREME). This program serves medical libraries throughout Latin America

(8) National Sub-Network of Oral Health Science Information. This program is sponsored by the Kellogg Foundation. It is focused at the faculty library of the USP Faculty of Dentistry, but it includes 20 participating libraries from throughout Brazil.

(9) National Sub-Network of Public Health Information. This program is sponsored by the Kellogg Foundation. It is focused at the faculty library of the USP Faculty of Public Health, but it includes 5 participating libraries from throughout Brazil.

(10) Network for Latin America and European Union (INFALUNE). This program is in the proposal stage. It will be involve SIBi/DT, the faculty library of the Faculties of Dentistry at Sao Paulo and Bauru campi of the USP, three European institutions (Universities of Toulouse, France, and Dundee and London, Great Britain), and Cayetano Heredia of Peru.

Cadernos de Estudos

- Estudo de estrutura organizacional para s Bibliotecas da USP - 2ª edição
  (Cadernos de Estudos, 1) - 1988

- Estudo preliminar sobre assinaturas de periódicos através de agentes ou diretamente com as editoras
  (Cadernos de Estudos, 2) - 1985

- Mobiliário básico para as Bibliotecas da USP
  (Cadernos de Estudos, 3) - 1988

- Equipamentos básicos para as Bibliotecas da USP
  (Cadernos de Estudos, 4) - 1989